



Vishnu Waman Thakur Charitable Trust's  
**VIVA Institute of Technology**

Approved By AICTE, New Delhi, DTE, Govt. of Maharashtra  
Affiliated to the University of Mumbai  
Shirgaon, Virar(E.), Dist: Palghar- 401305, Maharashtra

## **Criteria 1- Curricular Aspects**

### **Key Indicator – 1.3 Curriculum Enrichment**

#### **1.3.2 Report on Students Undertaking Project Work/Field Work/ Internships Year Wise During the Last Five Years**





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SR. NO.	DEPARTMENT	INTERNSHIP	MAJOR PROJECT	MINI PROJECT
1	CIVIL	15	151	222
2	COMPUTER	24	75	142
3	EXTC	9	73	47
4	ELECTRICAL	102	80	130
5	MECH	80	163	276
6	MCA	60		62
	TOTAL	290	542	879
	TOTAL STUDENTS WITHOUT REPEAT		1481	





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**Department of Civil Engineering**  
**List of Major Project for A.Y 2021-22**

Sr. No.	Name of the Students	Project Topic
1	GAIKWAD MANISHA	Plastic Road
	KAMBLE SAMEER	
	KARPE SUDHEER	
	KELGANDRE ANIKET	
2	JHA PRASHANT AJAY	Design Of Rapid Wall
	JHA NITIN VIDYARTHI	
	GADE SUNIL SANTOSH	
	BHOIR ABHIDNYA RAJAN	
3	KHANDELWAL HIMANSHU JAGDISH	Environmental Clearance For High Rise Building
	BHOIR KAUSTUBH ARVIND	
	MORE SIDDHESH ANIL	
	MISHRA DEVIPRASHAD PHOOLCHAND	
4	GODHKE GANESH	"Scheduling, Estimation And Modelling Of G+14 Structure"
	KAMBLE PRUTHVIRAJ	
	CHAVAN PRABHAT	
	CHAVAN SHUBHAM	
5	BAWASKAR LALITKUMAR ANANDA	Modelling And Analysis Of Cable Stayed Bridge Using Sap2000
	PRANIL YASHWANT JUWALE	
	PRATHAMESH BHOIR	
6	JADHAV GANESH PAVAN	Use Of Plastic As A Soil Stabilizer
	MADHA KANTU RAMESH	
	MATERA SUGAN RAJU	
7	MORSHING SUYASH SHASHIKANT	Analysis And Design Of Self Cooling Building
	MANGALE SHUBHAM SAMBHAJI	





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	DALVI YOGESH SHANTARAM	
	BANKAR NIKITA NARENDRA	

Sr. No.	Name of the Students	Project Topic
8	ABGUL SAMEER SANTOSH	Electricity Generation From Solid Waste
	BHANSE NIKHIL RAGHUNATH	
	KUMBHAR SHLOK PRADEEP	
	MORE AMEY PRAKASH	
9	DHATAVKAR DEVANSHI NITIN	Analysis And Design Of Pile Jetty
	CHAVHAN AKASH VILAS	
	KADAM BHAGYESH RAJESH	
	BHATT LISA JASMIN	
10	SWATI BANDGAR	"Retrofitting Using Frp Laminate"
	JANVI GAMARE	
	VIVEK GUPTA OMKAR KADAM	
11	LAD SOHAM PRAKASH	Landslide Mitigation By Using Soil Nailing Technique
	JADHAV NILESH LOV	
	AMBAVKAR ARJUN NITIN	
	GAWDE ADVAIT VIVEK	
12	KAMTEKAR PRIYANKA VIJAY	Geopolymer Bricks
	BANE KOMAL SUNIL	
	CHOTHE SUJIT BABU	
	KHARPADE ARCHANA RAGHUNATH	
13	KAMBLE MONIKA ASHOK	Bricks Made From Discarded Ppe Kit And Masks
	MHATRE PRACHI PRALHAD	
	JANGAM PRASHANT PRAKASH	
	MAHAJAN PRIYANKA VIJAY	
14	KHOPKAR HRITHIK VIJAY	Groundwater Recharging In Rural Areas
	DODEKAR DARSHANA DINESH	
	KULKARNI PRASAD	
	DATTATRAY	
	AROSKAR PRAJYOT PRAMOD	





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Sr. No.	Name of the Students	Project Topic
15	MULLA UMAIR	Self Healing Concrete: A Bacterial Approach
	BHANDARI PURUKUMAR BIPINBHAI	
	JADHAV AJAY	
	CHAVAN YOGESH	
16	GUPTA KRISHNA KAMLESH	Designing Drainage System For Andheri Subway Area
	BHATT KUNDAN ASHOK	
	BEDARKAR GAYATRI RAJU	
	MAHADESHWAR PURVA PANDURANG	
17	DESALE TEJ JAGDISH	Identification Of Potential Ground Water Recharge Zones Using Remote Sensing & Gis By Ahp Method
	DESAI SHEEL ASHOK	
	BHOSALE HARSHAD RAMESH	
	ATHAWALE RAHUL RAMKISAN	
18	ROHIT BHARTI	Contact Guide
	ADVAIT JADHAV	
	DEVALE NIKHIL	
	GAIKAR GITANJALI	
19	ATKOLE ANKIT SUNIL	Use Of Geosynthetic Material In Road Construction
	AGALE AJIT GIRISH	
	ADKAR BHAVESH LAXMIKANT	
	GHARAT TANMAY NAROTTAM	
20	DARDE GAURANG PRAKASH	Electricity Generation From Solid Waste
	KATKAR SHUBHAM SUNIL	
	BHOSALE PRATIK VIJAY BANDRE PRATIK VIJAY	
21	TAMBE SHRUTI RAJESH	Transit Oriented Development
	SONAWANE PRACHI GANESH	
	SHIRKE SAURABH SADASHIV	
	RAHATE VIJAY BHUSHAN	





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Sr. No.	Name of the Students	Project Topic
22	THAKKAR ASHISH JAGDISH	Engineered Cementitious Composite (Ecc)
	NANNAWARE MANGESH BABRUVAHAN	
	SHINDE RUSHIKESH SHANTARAM	
	SURYAVANSHI SUDHIR KHANDU	
23	POTDAR AKSHAY RAVINDRA	Sponge City
	PATIL SHUBHAM SANJAY	
	PATIL DHIRAJ TULSHIRAM	
	PATIL JIGNESH ANIL	
24	TATKARE PRAFULL SANJAY	"Building Analysis With Soft Storey Effect During Earthquake"
	SHINGADE ASHISH ROHIDAS	
	PHADTARE SACHIN SANJAY	
	TAMBAT MIHIR KIRTI	
25	WAVAGE YASH SANJAY	Internal Curing Of Concrete Using Light Weight Aggregate
	PEDNEKAR SAURABH MOHAN	
	SHINDE VAISHNAVI VIJAY	
	THAKARE DIVYATA DEEPAK	
26	THAKARE YOGESH SADASHIV	Flood Control Underground Silos
	YADAV RAHUL RAJESH	
	SHUKLA SATYAM MURLIDHAR	
	POWAR VINAY SHASHIKANT	
27	PARAB SIDDHANT SANTOSH	"Analysis & Design Rowhouse Using Ancient Techniques"
	SUVARNA PRIYA	
	PADMANABHA	
	TORASKAR ADVAIT KRISHNA	
28	VICHARE OMKAR ANIL	Testing on Railway Sleepers
	SHARMA SHUBHAM SUNIL	
	TANMAY	
	YADAV GOVINDA	





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29	YADAV DINESH KUMAR RAMADHAR	Utilization Of Fibre As Composite Material In Cement Mortar Tile
	SALUNKHE SAURAV DNYANDEO	
	SANGALE ABHISHEK SOMNATH	
	RATHOD JAYESH VASANT	
30	RISHAV DEV SHARMA PRADEEP	Hydrophobic Paints Using Natural Preservatives
	RAHMAT AHMAD SHAIKH	
	ABHILASHA YADAV	
	SANA SHAIKH	
31	SRIVASTAVA YASH BACHCHAN	"Prevention Of Landslides By Using Cantilever Road And Barrier"
	RAUT KAUSTUBH YASHWANT*	
	PAI DISHANK DINESH	
	THAKARE AKSHAY EKNATH	
32	RATHOD KARAN	Use Of Plastic Waste In Paver Blocks
	WAGHAMARE SHREYAS	
	PATEL DHIR	
	PAREKAR ADARSH KRISHNA	
33	PANDEY SAURABH RAMESH	Slope Stability By Using Rice Husk Ash
	RATHOD RUTVIKA SURESHBHAI	
	SAGVEKAR NIKITA VITTHAL	
	SHINDE SONALI SAGAR	
34	SANKHE SHUBHAM SURENDRA	Self Illuminating Road
	SANKHE ATHARV SUDHIR	
	NAIK KAUSTUBH SUBHASH	
	NAIK RITVIJ VINOD	
35	PATIL NIHAR NARENDRA	Analyzing and designing of composite railway sleeper
	NAR VAIBHAV MANGESH	
	RANA BHAVAN ANIL	
	TIWARI KETAN SUDHIR	





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Sr. No.	Name of the Students	Project Topic
36	SUTAR OMKAR SHASHIKANT	Feasibility Of Tecorep System In India
	SALVI NEHA SURYAKANT	
	RATWADKAR ANSHUL SANTOSH	
	SINGH RICHA JITENDRA	
37	WANKHEDE MAHESH PUNDLIK.	Landfill Management In Gokhivare Dumping Ground
	PAWAR SAGAR SURESH.	
	PATIL PRASHANT GAURU.	
	NARKAR AVINASH DATTARAM.	
38	WAGHMARE SUMIT	"Passive Solar Heating"
	VALVI ASHITOSH	
	WAIGANKAR ADITYA SHELKE SUSHANT	
39	HIMANSHU SANKHE	Planning And Scheduling Of Underground Metro Station Box Using Msp Software
	SURAJ SAMBRE	
	RAHUL SHELKA	





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## List of Mini – Project for SEM V & VI A.Y 2021-22

SR NO	NAMES OF STUDENTS	TOPICS OF PRE-PRESENTATION
1	PALAV ANKITA	Construction Of Specimen Of Gfrg Panels As Walls In Building Instead Of Conventional Walls
	PATIL ABHISHEK	
	PATIL OMKAR	
	PATIL JAGDISH	
2	SURVE VIDHI	Brigde Design Using Pre-Stress Concrete
	SALOKHE VAISHNAV	
	SWAPNALI TAIGADE	
	ROHAN SALUNKHE	
3	PATIL DEVANG	Mini Rmc Plant
	PATIL VICKY	
	PATIL MANISH	
	PATIL NITESH	
4	NAIL SUMIT	Novelapplication Of Bamboo As A Building Material Speciman
	PATIL SACHIN	
	SHELAR NIHAL	
	SINDHE KAUSTUBH	
5	PATIL CHINMAY	Alternative For Railway Bridges
	PATIL SHOLK	
	RAUT OMKAR	
	VAZE YASH	
6	VINERKAR TANISH	Water Proofing Polymmer From Plastic Waste
	SAWANT YASHWANT	
	SHAHA YASEEN	
7	PANDIT DIPESH KUMAR	Light Transmitting Concrete
	RANGALE SAMEER	
	RATHOD ANKUSH	
	SHAIKH SAMEER	
8	TAMBE PRIYESH	Design Of Wastewater Tretment Plant
	YADAV SHUBHAM	
	YADAV SACHIN	
	PATIL RAHUL	





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SR NO	NAMES OF STUDENTS	TOPICS OF PRE-PRESENTATION
9	PANDEY PINAKSEN	360° Laser
	PATANGE OMKAR	
	TANDEL PANKAJ	
	SATHE MOHD BILAL	
10	PAITHANKAR YASH	Design Of Slope For Stability
	SAMANTARA ROSHAN	
	SHETH MANAV	
	SATPUTEDIGVIJAY	
11	NARKAR ROHIT	Use Of Platic Waste In Paver Block
	PAWAR SHREYASH	
	NASHIBA VEDANT	
	SABLE SHUBHAM	
12	SINDE MAYUR	Model Showing New Applicatin Of Use Of Fly Ash
	SHARMA AAKASH	
	SHAIKH VASIM	
	SHAIKH AZARUDHIN	
13	NARAWADE GANESH	Design Of Road Intersection
	VASAVE RISHABH	
	SURVE SANGRAM	
	VALVI AJAY	
14	PALE SAURABH	Developemnt Of Noise Absorbing Composite Material Usinf Agro Waste Products
	PATIL TEJAS	
	RAUT ANKIT	
	SANLKE PRATIK	
15	SADRIWALA MOHAMMAD	Construction Of Road Using Basalt Plastic
	SAWANT SUPRABH	
	PIMPLE TANMAY	
	PATIL CHINAMY	
16	NAKTI DIVESH	Structural Audit Report
	PATIL BHAVIK	
	OGE YASH	
	NIKAM YASAH	





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SR NO	NAMES OF STUDENTS	TOPICS OF PRE-PRESENTATION
17	GAWAI YASH	Traffic Control Rotating Bridge
	MADHAV SHUBHAM	
	HUMANE OMKAR	
	KADAM HARSHAL	
18	JAIN AAYUSHI	Wire Less Charging Road
	DHUMAL SHREYAS	
	MAHTRE RAJ	
	AMIT BADADE	
19	MISAL SIDDHESH	Analysis Of Rcc Grt 5 Residential Building
	KHAN MAAZ	
	GOWADA MANASVI	
	MULE AKSHAY	
20	KAMBLE PANKAJ	Design Of Tunnel
	KARANJEKAR SAHIR	
	BAND MIHIR	
	KASAR SAIRAJ	
21	DHALE YASH	Iot Base Smart Device For Traffic Signal Monitoring
	DEVBUKHAR SAHIL	
	GAUAD MAITREYA	
	JADHAV YASH	
22	KANOJA DRUVESH	Development Of Advance Pavement Material For Blast Road
	DALAVI YADHAV	
	JHA ASHISH KUMAR	
	DALAVI ADITYA	
23	AHIRE VIKARAM	Hydraulic Bridge
	JADHAV VINOD	
	JADHAV SHREYAS	
	GAWAD VEDANT	





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SR NO	NAMES OF STUDENTS	TOPICS OF PRE-PRESENTATION
24	DANDEKAR SAMITA	Demonstration Of Smart Irrigation Using Soil Moisture Sensor
	DHAWDE SAKSHI	
	MACHHI JIGNESH	
25	KUMAR VIVEK GUPTA	Design Of Analysis Of Zero Energy Building
	KOKARE AKASH	
	MOMINMD MOURSALIN	
	SAKALP YASHWANT	
26	ANUGIA ARYAN	Hybride Bricks
	BIDKAR BAJRAND	
	HEGDEDI RUPESH	
	DHANAGADA SANDESH	
27	DHARNE SIDDHANT	Dubble Deccer Bride Analysis And Design
	KOLI AKASH	
	BHOIR ARYAN	
	KENE DIPESH	
28	KHARET SHENAL	Prevention Of Slope Failuer
	AMBHORE PAVAN	
	BHORE SAKET	
	MHATRE PRATHMESH	
29	ALAV AMIT	Mobile App For Smart Traffic Management System
	KHADAP SHUBHAM	
	KAMBLE BHANDARE	
	AADESH BHANDARE	
30	MAHTRE SAHIL	Prevention Of Accidents In Accidental Prove Areas
	HATKAR PARTH	
	CHOUDHARI YASH	
	MAHTRE JEENAL	
31	VAIBHAV CHOUGLE	Design Of Sanitary System For A Specific Village
	KAZI FAIZAN	
	GHODAKE SAURBH	
	AWAD KSHITIJ	
32	VISHAL JAISWAR	Planning And Design Of Hydo-Electric Power Plant
	LIKHAR CHAITALI	
	AVCHAR GANESH	
	LONE SANKET	





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**List of Mini – Project for SEM III & IV A.Y 2021-22**

SR NO	NAMES OF STUDENTS	TOPICS OF PRE-PRESENTATION
1	MISHRA AVINASH	Developing 3D printer concrete
	MORE KUNAL	
	DANDEKAR PRIYANKA	
	MAURYA KUNDAN	
2	LOUIS MAMTA SANJAY	Purification of water using Root Zone Technology
	MALE SURAJ HANUMANT	
	PANCHAL KRISHI YOGESH	
	PARAPPURATH MAHADEVAN	
3	JINDRAN BILAL AYUB JINDRAN	Partial replacement of fine agg with waste glass
	KHILJI IZAZ BABU	
	PANDIT SAHIL MAHESH	
	KUNWAR RUPESH PRAMOD	
4	AVHAD PRAKASH RANGNATH	Water purification by plants
	AYARE ROHIT RAVINDRA	
	BOMBLE HARSH KUNDLIK	
	CHINDARKAR SIDDHARTH ARJUN	
5	DHARNE SHUBHAM CHINTAMANI	Comparative Study of RCC & steel structure
	AVHAD PRATHMESH	
	ANNASAHEB	
	KOKATE DARSHIL ASHOK	
6	CHAVAN DIPESH DIVAKAR	Construction of GFRG palels
	CHAVAN SAYALI	
	CHURI KRUTIK	
	MAHADIK KUNAL	
7	GURAV SAMEER	Sesmic analysis of building by retrofitting
	DAVANE DHRUV	
	JAHAGIRDAR ISHAN	
	KHATRI MOIZ	
8	PATIL HARSH	Arch bridge
	ANKIT PATIL	
	JANATHE TANMAY SUNIL	
	KALE VISHWAJIT TANAJI	





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SR NO	NAMES OF STUDENTS	TOPICS OF PRE-PRESENTATION
9	PATIL AAYUSH	Earthquake resistance wooden houses
	PATIL KUNAL	
	PATIL JATIN	
	PATIL HIMANSHU	
10	GOVILKAR RAJ SANJAY	Common impluent treatment plant
	GOWDA VINAY NAGRAJ	
	HONARAV OMKAR	
	SHRISHAEL	
11	JADHAV DEVENDRA VIKAS	Experimental Resarch on strength properties of concrete
	DUBEY PRIYA VIMLESH	
	GAVANDGAVE SHIVAJI	
	YADAV	
12	GHADE SHUBHAM KESHAV	Study & design of Roundabout
	GHORI MUBEEN BASIT	
	ANSARI SHOYEB	
	ANAND JADHAV	
13	VISHAL KARALE	Partial replacement of cemet by rise husk ash and nylon fiber
	TAMHANKAR TANMAY	
	VAIBHAV	
	SHAIKH YASEEN YUNUS	
14	SHAIKH ASHRAF ABDUL RAHIM	Hydraulic bridge
	SHAIKH AVESH MUZAFFAR	
	THAKUR ARYAN NILESH	
	VALA HIRRAJ	
15	THUKRUL AKSHAY ANANT	Water absorption road
	SHAHID MOHAMMED YUNUS	
	SIDDIQUI SHAMAN	
	TIWARI PIYUSH	
16	SABLE RAKSHIT	Designe and devlopment of smart speed braker
	SANGPAL PRASAD	
	SANGLE SHUBHAM	
	SHIGWAN SUYOG	
	TAWDE RAJAT	
	SHIPKULE ABHIJIT	





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SR NO	NAMES OF STUDENTS	TOPICS OF PRE-PRESENTATION
12	PAWAR VAIBHAV RAVINDRA	3D model & analysis of G+1
	PRAJAPATI AAKASH RAMA	
	RAUT ANIKET KIRAN	
	SHAH VIKAS AWADHESH	
18	SINGH CHETAN RAJNEESH	Electric charging lane
	SHINDE NIKHIL VILAS	
	SHINDE SWAPNIL SANTOSH	
	SINGH DEENDAYAL	
19	Sawant Trushal	Flood control system
	Tandel Bhavesh	
	Ravate Rekha	
20	SHARMA TARUN LALMANI	plastic road
	VARMA SAKSHI SHRAVAN	
	PAWAR ANUSHKA PRADEEP	
21	ROHEKAR OMKAR	Low cost housing material and technique
	PATIL SANCHIT	
	PATIL PRAJWAL	
	PRAJAPATI MAYANK	
22	SURYAVANSHI SHUBHAM SANJAY	Rain water Harvesting
	PATIL MANASVI SANDIP	
	TIWARI NIKITA NAGENDRA	
	PAWAR ASHANA HEMANT	
23	SHEVALE AADESH ABASAHEB	coir fiber reinforcement concrete
	THARALI PROJYOT DHONDU	
	VISHWAKARMA SIDDHARTH	
	SALGAONKAR SARVESH	
24	SAH ROHIT SAROJ	Fiber reinforced concrete
	RAUT HITANSHU PRASHANT	
	UBALE PRAJYOT EKNATH	
	SHAIKH AYYAN JAVED	
25	KRANTI PAWAR	LIGHT TRANSMITTING CONCRETE
	CHARMI YENNAPU	
	VISHAL TIGHULVAD	
	YADAV OMKAR	





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**Internship Details A.Y 2021-22**

Sr. No.	Name of the student studied course on experiential learning through project work/field work/internship	Company Name
1	PRITHVIRAJ SAWANT	RK Solutions
2	SHARMA RAVIKUMAR	RK Solutions
3	SHAHU SHUBHAM	RK Solutions
4	SARGAR GANESH	Aradhya Associates
5	CHIRAG SANKHE	Aradhya Associates
6	ANIKET DUBEY	Aradhya Associates
7	PARTH SARAVIA	Aradhya Associates
8	SEJAL AGRE	Arvind Consultancy
9	GAWAD SAMIKSHA	Arvind Consultancy
10	TEJAL BORKAR	Arvind Consultancy
11	JANAVI KIRPANE	Arvind Consultancy
12	SHWETA GUPTA	RK Solutions
13	RENUKA KAMBLE	RK Solutions
14	DHANESHREE PATIL	Aradhya Associates
15	VRUSHALI CHAVAN	Aradhya Associates





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## Department of Computer Engineering List of Major Project for A.Y 2021-22

Sr. No.	Name of the Students	Project Topic
1	SHAH PRIYANK RAKESH ILA	SnapSolve - A Novel Mathematics Equation Solver using Deep Learning.
	SHINDE NITIKET RAVINDRA SWATI	
	LIMBAD DEEP DHARMENDRA GEETA	
2	PUJARI PAWAN SANJIVA SINDHU	Multi-layer authentication protocol system for security enhancement of administrative devices.
	PANDHARE YASH PRAKASH SWATI	
	BAWA ADITYA JITENDRA CHETANA	
3	PATIL YOGESHWAR GAJANAN POOJA	Voice Based Taxi Booking System
	RANE SIDDHESH SUNIL SIDDHALI	
	PATIL YASH SUBHASH BHAVANA	
4	ISWALKAR ABHISHEK ASHOK ASHWINI	Fraud Apps and Virus Detection System
	GORLE SAGAR ARUN AKSHATA	
	DUBEY GOVINDNARAYAN RAMESH REENA	
5	PATIL CHIRAG PRAKASH PRATIKSHA	Real estate management system using blockchain
	KORE SHUBHAM NANDKUMAR NISHA	
	PATIL DEVESH ANIL MOHANA	
6	PATEL HEMIL DEEPAK SHEELA	DRISHYAM : An Interpreter for Deaf and Mute
	KOLTHARKAR SUYASH SAGAR SONALI	
	GUPTA AMIT MUNNA URMILA	
7	MALI KAMLESH RAMESHKUMAR REKHA	F-pay:-A Secure Approach For Payment
	KARAN KUMAR KUNDANMAL SUSHILA	
	MHETRE BALAJI SUBHASH KALAVATI	
8	BHAGAT MAITRI DEEPAK DIVYA	Resume Parser
	CHINCHANE RIDDHIMA MILIND KAVITA	
	JHA SHWETA KRISHNACHANDRA SULEKHA	





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Sr. No.	Name of the Students	Project Topic
9	MOBARKAR SAMIKSHA SANJAY SAKSHI	Smart Interviews using AI
	MORE ADITI SANTOSH SNEHAL	
	SALUNKE SIDDHITA SUBHASH PRAGATI	
10	KADU DEVESHREE VIJAY SANGEETA	Pet Paradise
	JADHAV HRUCHITA BALU PRAMILA	
	PATIL YUGALI SANTOSH SWAPNA	
11	INGALE SANKET SUNIL SMITA	Intelligent surveillance system
	KHARATMOL RITHIK CHANDRAKANT RANJANA	
	VAISHYA RITESH SURESHCHANDRA PUSHPA DEVI	
12	CHIKHALE URVAL UDAY UNNATI	Virtual assistant for Elderly people
	SHYAMLAL GUPTA GAURAV SUNITA	
	GUPTA RAJ PRAMOD MAMTA	
13	CHURI VINIT BIPIN SHOBHANA	Road-Safe: a GIS-based road monitoring system
	VASALWAR ASHUTOSH DNYANESHWAR MANGALA	
	BHOIR VINIT DNYANESHWAR SANGITA	
14	DABHI SHARAN ARVIND HETAL	Wildfire prediction technique using machine learning.
	SANKHE PIYUSH SANTOSH SUCHITA	
	SINGH PRATIK ARVIND SANGEETA	
15	DESAI GAURESH SHIVAJI YOGITA	I VOTE: cloud based voting system with identity verification
	TAMBAT RAHUL MANGESH MANALI	
	MAHADIK HRITIK SACHIN SNEHA	
16	PATIL RAHUL UDAY MALTI	Intelligent eye - smart assistant for visually impaired
	PARAB PRATHAMESH SADASHIV JANAKI	
	RATHOD VILAS NATHU PRAMILA	
17	BHAGAT POONAM SANJAY VANITA	Try on: a virtual dressing room
	JADHAV RUTUJA DEVSDAS DAKSHATA	
	BOTE MAYUR RAJARAM RESHMA	





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Sr. No.	Name of the Students	Project Topic
18	DHANDE HIMANSHU PRAMOD NUTAN	Scorpion Sheild
	KARWANDE DIVYA DNYANESHWAR INDIRA	
	KADAM ATHARV AMIT GEETA	
19	YADAV AJAYKUMAR SANTLAL LAXMIDEVI	A distinctive multilingual messaging application with ocr
	WAINGANKAR SHUBHAM MANGESH MINAL	
	SALVI KSHITIJ DHONDU KAVITA	
20	PRAJAPATI ANANT VIJAY HARSHA	Virtual Mouse using Artificial Intelligence.
	MEDHEKAR PRATHMESH BALARAM USHA	
	PADELKAR TANUSHKA ABHIJEET AKSHATA	
21	NAIK PRATHAMESH SANTOSH MANSI	Special Child Care App
	DHURI MANSI DEEPAK SANDHYA	
	BHARANKAR YUKTA SANJEEV GAURI	
22	SUTHAR SANIKA KANHAIYALAL KAMALA	Morse D-pad
	THANAWALA HUSSAIN ADIL TASNEEM	
	THAKUR SIMRAN NETARSINGH PRAKASHA	
23	YADAV PIYUSH SABHAJEET MALTI	Yoga Pose Detection using Machine Learning and Deep Learning
	THANVI TARUN MEGHRAJ SUNITA	
	SAMANI MOHAMMAD HAMID AMJAD ALI SALIMUNISSA	
24	NAIK DARSHAN GANESH MANISHA	Digital room service
	NAIR RAHUL MURALEEDHARAN VALSALA	
	SAMANTA SUMIT SUSHIL SARASWATI	
25	SULE ADITYA VILAS YASHODA	Crypto currency price prediction
	TIWARI ASHWANI SUSHIL KUSUM	
	YADAV RAHUL INDRADEV URMILA	





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## List of Mini – Project for A.Y 2021-22

Group No.	Name of Student	Title of the Project
1	MANGESH RAMASHANKAR RAM	Simple Expense System
	PRATIK DIGAMBAR PATIL	
	ANSH HARISH POOJARI	
	ARYAN MANISH RAUT	
2	NEHA MILIND KADAM	BIBLIOTHECA
	HARSHAL MAHARU PATIL	
	VRUNAL SANDESH GHARAT	
	TEJASHREE BALBHARAT MESTRY	
3	ROHIT KINKAR GHORUI	R.P.G : Random Password Generator
	SIDDHESH RAMESH JADHAV	
	SUMIT PRAKASH ANKUSH	
	JAYESH MUKUND DEORE	
4	DHUMWAD ANURADHA	Groove up
	CHAUHAN KASHISH	
	ELINJE ANIKET	
	PAWAR ARIN	
5	ANKUSH DINESH DUBEY	Digital Voting System
	NIKITA RAJENDRA SHINDE	
	SUMANT SUDHIR JHA	
	CHAITANYA RAJAN PAWAR	
6	SIDDHESH RAMESH PANCHAL	ATM Management Simulator
	SHARDUL SACHIN NAIK	
	DEVEN BALKRISHNA RANDIVE	
	SAKSHI KIRAN PATIL	
7	MANAS VIJAY MHATRE	SIP CALCULATOR
	PRASAD VAIBHAV NAIK	
	SAKSHI DINESH NEGI	
	VIVEK GANPAT MISTRY	
8	LOYARE OM	Stack based text editor
	ADARKAR OMKAR	
	DUTKAR DHURUV	
	MOTIVARAS TANISHA	





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10	YASH KISHOR SABLE	Student Result Management System
	PRIYANSHU RAJENDRA YADAV	
	SIDDHEY KETAN RAUT	
	VINAY JANARDHAN CHIPPA	
11	SHRUTIKA NARENDRA KOLI	Online Survey System
	SAURABH PRAMOD WALANJ	
	PRATHMESH NANDKUMAR PAREKAR	
12	ABHIDNYA ASHOK PATIL	Sniff-Tech-Tive
	AYUSH ASHOK SHARMA	
13	SHREYASH PATIL	Fitness App - Name - H&F A Supreme Workout Planner
	MITALI GHADIGAONKAR	
	DHANASHRI PATIL	
	SARFARAZ KANGANOLLI	
14	QURESHI SOHEL AMIN	Hospital Bed Provider
	SINGH SHIVAM JAYPRAKASH	
	SOLANKI UJJVAL SHAILESH	
	VERMA RAJKAMAL RAMKEVAL	
15	SURAJ NANDKUMAR SAKHARE	Smart Household Budget Calculator
	PRANAY CHANDRAKANT RAUT	
	CHAITANY PRAKASH GHADIGAONKAR	
	TAJ MOHAMMAD BADRUDDUJA KHAN	
16	ABHISHEK VIJAY MANDAVKAR	Milk-E-Dairy
	TEJAS BALIRAM KINI	
	DISHANT SAVE	
	YASH PATIL	
17	PAL SANTOSHKUMAR BAMRAJ	System Of Suraksha
	VISHWAKARMA AMARJEET GOVIND	
	SAWANT TANMAY CHANDRAKANT	
	DHAMAPURKAR SAHIL HEMANT	
18	VIVEK KHANZODE	Tutor's Corner
	SAHIL AVINASH KENY	
	GANESH DILIP FARTADE	
	ADITYA JAWLE	





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19	DAS PAYAL HEMANTA	DIAPREDIC
	GASTI MANASHRI GAJANAN	
	LIMBAD MANSI MANOJ	
	TELANGADE PRANAV SUNIL	
20	BIYABANI MOHAMMED FARAAZ	FEEDBACK MANAGEMENT AND WEB WIDGET GENERATION
	CHOWDHURY RIYAD	
	MAKWANA MEET SURESH	
	RAKAN AHMEDABBAS HAIDERALI	
21	CHAVAN BHUSHAN SANTOSH	Manage-My-Expenses
	JHA KISHORE PITAMBER	
	DIWEKAR CHETAN SUNIL	
	JAISWAR KAMAL PRAMOD	
22	DATT KARISHMA RAMCHANDRA	Heart Disease Predictor
	CHOUDHARI VINOD NARENDRA	
	PATHAK PRIYA RAJESH	
	PATIL MANSI SANJAY	
23	PARAB AVDHOT NILKANTH	Discusser
	PARIDA SAUMYA RANJAN	
	HARAYAN GOVIND MADHUSUDAN	
	MANE SHRUTI GAYATRI	
24	PATIL HANISH NARESH	Project Placement
	KHANDAGALE SAHIL RAMESH	
	NAGVEKAR OMSAI SURENDRA	
	KAPRI NILESH BIHARILAL	
25	KUCHEKAR POONAV ANIL	Predicting Chances of Brain Stroke using ML
	DEOPURKAR SRUSHTI ULHAS	
	SHARMA ROHAN DEVENDRA	
	URANKAR SIDDHARTH SURESH	
26	VARMA JAYANT PRAMOD	Voice Based News Application
	SHUKLA SHIVANI SANJIV	
	WAGLE ADNAN MIRZA	
	OJHA ABHISHEK PRAMOD	





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27	YELVE SHUBHAM SANJAY	Online Book Buying and Selling Portal
	PATIL DIKSHITA KUMAR	
	YADAV ANKITA NEHRU	
	SINGH ROOPESH SHAILENDRA	
28	BAG KAMLAKANT VISHWAMITRA	Face mask and social distancing detector
	KAMBLE MANSI RAJAN	
	MANDEKAR HEMAKSHI MAHESH	
	NAIR VISMAYA VENUGOPALAN	
29	VEDPATHAK TANMAY RAJENDRA	E-commerce website
	VISHWAKARMA SIDDHESH KUMAR SARVESH KUMAR	
	YADAV YOGESH RAMSAKAL	
	SHAIKH QHUBAIB MUEEZ MEHMOOD SHAHNAZ	
30	JADEJA HARSH KISHOR	Genuine website search engine
	PAL DINESH RAMBALI	
	KADAM MITALI DHARMENDRA	
	ZAVARE RIDDHI DILIP	
31	SHINDE SAKSHI SUNIL	Support.com - A website for SHGs
	RAUT AKSHITA	
	SAWANT KRUPASHREE PRABHAKAR	
	SHIRSATH KOMAL VINOD	
32	DUDYE SHWETA KESHAV	Voice assistant news app
	CHINDARKAR YUVRAJ RAVIKANT	
	NAIK VRUSHIKA VIJAY	
	DAKARE ANKITA RAJARAM	
33	SONI VIKAS OMKAR	Crypto voting
	VISHWAKARMA HRITIK RAJNARAYAN	
	YADAV SHUBHAM ABHAYJEET	
	YADAV SHUBHAM SURESH	
34	ANABHAVANE RUPESH DINKAR	image stengography
	JADHAV DARSHAN KIRIT	
	RATHOD NAINESH VASANT	
	GHUGE CHAITALI VIJAY	





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35	JADHAV SHREYASH SUHAS	Employee Retention Prediction System using Machine Learning
	JOSHI MIHIR RAMESH	
	PATIL ADITI RAJARAM	
36	PATANWALA HAIDER	fitzbit (Fitness app)
	MISHRA DHIRAJ	
	PATIL YUVRAJ BHAGWAN	
37	SANKHE SAISH SACHIN	E-dibbawala
	SHARMA PRIYANSHU ROHIT	
	SINGH ASHWINI DHIRUVENDRA VIKRAM	

## Internship Details A.Y 2021-22

Sr. No.	Name of the student studied course on experiential learning through project work/field work/internship	Company Name
1	RAHUL NAIR	Jpmorgan Chase & Co.
2	RAHUL MANGESH TAMBAT	Goapptiv Pvt. Ltd.
3	DIVYA KARWANDE	Whitehat Jr.
4	GAURESH DESAI	Robosync
5	RAHUL NAIR	Whitehat Jr.
6	SIMRAN NETARSINGH THAKUR	Forage- Microsoft
7	SUYASH SAGAR KOLTHARKAR	Paynav
8	ADITYA JITENDRA BAWA	Robosync
9	SIMRAN NETARSINGH THAKUR	Whitehat Jr.
10	DEVESHREE KADU	Exposys Data Labs
11	KAMLESH MALI	Web Developer, Rc Dimonds
12	SIMRAN NETARSINGH THAKUR	Lyricious
13	DEVESHREE VIJAY KADU	Exposys Data Lab
14	SIMRAN THAKUR	Jpmorgan Chase & Co.
15	HRUCHITA BALU JADHAV	Leads Flick Marketing
16	URVAL CHIKHALE	The Spakes Foundation
17	SHARAN DHABI	Sys Technologies
18	SIDDHESH RANE	Robosync
19	NITIKET SHINDE	Knowledge Solution India
20	HRUCHITA BALU JADHAV	Lyricious
21	PRATHAMESH S. NAIK	Exposys Data Lab
22	VINOD NERENDRA CHAUDHARI	Verzeo
23	GOVIND HARYAN	The Spakes Foundation
24	ASHWANI TIWARI	Geogo Techsolution Pvt. Ltd.





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## Department of Electrical Engineering List of Major Project for A.Y 2021-22

Sr.No	NAMES OF STUDENTS	Project Name
1	NANJIANI MIHIR RINA	Sustainable E-Ploughing In Agriculture
2	KAPDULE OMKAR VASUDEO VANDANA	
3	HIRPARA ANKIT RAMJIBHAI MANJULABEN	
4	RAUT KALPIT MANOHAR MANASWI	Agriculture Fire Protection System
5	PATIL DAKSHAT BHALCHANDRA BHAVANA	
6	/ PAWAR PRIYANKA BHAIRU SUNITA	
7	CHAUHAN AKSHAY SANJAY JAYSHREE	Density Based Traffic Signal/Light Controller
8	GUPTA HARSHAL BHULAN PINKY	
9	SAWANT ROHAN VISHWANATH VINAYA	
10	PATIL RUSHIKESH KUMAR KAVITA	Portable Accommodation for Beach Cleaning Robot with Solar Charging
11	PATIL SANKET SOPAN SEEMA	
12	VAZE ASHUTOSH NITIN NIKITA	
13	MUNDAYAT SREETISH RAVINDRAN NISHA	Remotely Operated Vehicle For Underwater Inspection
14	SAIYED AMAAN KAUSAR NASIM	
15	SHINDE RAJ SATISH SIDDHI	
16	GOSAVI SUYASH MANOHAR MITALI	Synchronous Machine Design Software
17	/ THAKARE CHETANA NARAYAN BHARATI	
18	MAKWANA PRATIK BIPIN RANJAN	
19	BAGWE NINAD PRASAD PRAPTI	Eco friendly whirlpool turbine
20	/ CHAVAN RUTUJA AJAY APARNA	
21	/ RANE NETRA PRAKASH NANDA	
22	MADIYA MILAN KISHOR RANIBEN	Low cost Ventilator with BGM & oximeter
23	BHARKHADA ASHISH MAHESH NITA	
24	SEJPAL HARMISH BINDESH RIMA	
25	VANMALI DHIRUVESH PRASHANT PRATIBHA	Traffic Data Vertical of Geospatial Data Centre
26	SHINDE RUTIK ANKUSH APEKSHA	
27	SAPATE ROHIT DILEEP DIPALEE	
28	RAWOOL PRATHAM PANDHARINATH PRAJAKTA	Beach cleaning robot
29	YADAV AAKASH SATISH SNEHA	
30	/ KAMBLE SHWETA NARENDRA VANITA	
31	GIJBILE ADITI SURYAKANT SONAL	Speed Control of DC motor using various techniques
32	/ KUMBHAR VRUSHALI BHALACHANDRA BHAVIKA	
33	/ VELPADA SUREKHA CHINTAMAN CHAMPUBAI	
34	PASHTA POOJA KIRAN KAJAL	IoT based air quality pollution monitoring system
35	JADHAV SIDDHI ANIL ANKITA	
36	PILKE NISHANT JITENDRA JAYSHREE	
37	/ GAWADE KARUNA GOVIND JYOTI	Weather data vertical of geospatial data centre
38	/ GUPTA PRITI GURUPRASAD ANITA	
39	/ JADHAV SAMIKSHA HIRAMAN HARSHADA	
40	GUPTA RAJENDRA BASHISHT MANJU	Design And Comparison Of Controllers For Speed Control Of Bldc Motor
41	UPADHYAY VINAY UMESH KUMAR RUKMANI	
42	SOLIM HITESH RAMCHANDRA KIRAN	





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43	PIMPLE TANAY NARENDRA NAMITA	Dynamic wireless charging of electric vehicles
44	SANKHE YUGAN BALARAM VRUSHALI	
45	THAKARE BHAVESH SHRIKANT SWATI	
46	GHARAT HITESH DINESH DIPA	Remote Control Hovercraft
47	PATIL OMKAR VIJAY SUVARNA	
48	TAMBE AMAY ASHOK ASHWINI	
49	/ PATIL PAYAL SUNIL SMITA	Covid 19 Disinfection Sanitization Robot
50	/ KHADAYE BHAKTI SADASHIV SHUBHANGI	
51	TANK PARTH BAVCHANDBHAI DAYA BEN	
52	/ BHOIR AMISHA DNYANESHWAR SANGITA	Soil pH level for agricultural land
53	LASE NITESH BHIKAJI NUTAN	
54	KALE PRADEEP PRAKASH SUNITA	
55	MARDOLKAR SACHIN DINKAR VAISHALI	Vortex bladeless wind turbine
56	PANCHAL JATIN VINODKUMAR HANSA	
57	SASE PARAG RAJESH RUPALI	
58	PAWAR RAHUL RAJENDRA NEETA	Smart Glove For Deaf And Dumb Patients
59	MURUDKAR ANIKET SANJAY SEJAL	
60	AMIN GAUTAM MOHAN GEETHA	
61	VISHWAKARMA PRINCE RAJENDRA ANITA DEVI	Differential protection of transformer using Arduino
62	SAWANT PRATIK RAVINDRA SHAILA	
63	KOLEKAR KUSHAL VILAS RANJANA	
64	PAWAR NIRAJ MARUTI MADHVI	Dynamic Load Management in Smart Home
65	BHUSARA JITESH ANIL HIRA	
66	OJHA VISHAL SHASIKANT MEENA	
67	PADYE AKSHAY ARJUN ASMITA	EV charging station for Ebike
68	JAISWAL AMITKUMAR NAVALKISHORE PUSHPA	
69	LOKE KAMLESH GANPAT GEETANJALI	
70	PARADHI SHARAD GANESH SUNITA	Solar powered mobile operated smart agriculture robot
71	BHANDARI PRADIP PRAKASH RANJANA	
72	SHANVAR CHINTU DHAKATYA PARVATI	
73	YADAV PANKAJ SURESHCHANDRA SHUSHILADEVI	Application based Solar Calculator with cost estimation
74	PACHAREKAR ASHISHKUMAR ASHOK SUVARNA	
75	VEKHANDE PRATHMESH PRAKASH PRAMILA	
76	JADHAV HITESH MADHUKAR MADHURI	
77	CHOUHAN SANGITA PREM NARAYAN MAYA	Agro land mapping Vertical of Geospatial Data Centre.
78	GUPTA AVINASHKUMAR SEWALAL TARADEVI	
79	PAWAR FALGUNI RAMCHANDRA NANDA	
80	POOJARI SNEHA DEVRAJ BHARATHI	





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**List of Mini Project for A.Y 2021-22**

Group No.	Semester	Title of the Project	Name of Student
SEMP01	SEM 3 & 4	ER level indicator controller	PATHARE MAYUR CHETAN
			BIND JITENDRA MOTILAL
			NAIK AAKASH JITENDRA
SEMP02	SEM 3 & 4	Cycle Generator	SAHIL TRIKAM SOLANKI
			YASH RAUT
			HARDIK PATIL
SEMP03	SEM 3 & 4	Automatic street lighting control system using LDR	DAUDA AADESH JANA
			JANATHE HARESH LAXMAN
			MAHALA NILESH VASANT
			GURODA KUNAL KRISHNA
SEMP04	SEM 3 & 4	Single Phase inverter	HARSH RAJESH SHUKLA
			DHRUV ASHOK PANCHAL
			JAY DILIP PATEL
			VIGHNESH SANDESH CHAUDHARI
SEMP05	SEM 3 & 4	Ac Wireless Line	RAJ PRADEEP SAROJ
			ROHIT RAJENDRA SURVE
			SIDDESH SAWANT
			VIVEK KARWANDE
SEMP06	SEM 3 & 4	Home automation	GOHIL DHRUV ATUL
			FATNAIK ASHISH UDAY
			REWALE JAY PRAVIN
			PASHTA SNEHAL SUBHASH
SEMP07	SEM 3 & 4	Fire alarm system	BANGAR HRUSHIKESH MANGESH
			BHOIR JANHAVI ASHOK
			MHATRE PRASHANT MANOJ
			PATIL SHRADDHA KAILAS





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Group No.	Semester	Title of the Project	Name of Student
SEMP08	SEM 3 & 4	Wave energy generator	GANVE ALANKAR GOVIND
			KADAM KUNAL KISHOR
			PARAB HRITIK ATMARAM
			PATIL BHAGYASHRI PRABHAKAR
SEMP09	SEM 3 & 4	Solar Battery Charging station	AMBAT SAGAR SANTOSH
			JADHAV ROHAN EKNATH
			VANARE ROHAN TANAJI
			MAHADIK SHREEKRISHNA PRAKA
SEMP10	SEM 3 & 4	single axis solar rotating panels	VARMA VIRENDRA RAMDEV
			KUSHWAHA SUNNY JAYPRAKASH
			SINGH DINKAR RAJESH
			KADAM NIKHIL VIJAY
SEMP11	SEM 3 & 4	Circuit breaker circuit	GHORPADE RUSHIKESH RAJKUMA
			TAMORE RHUSHIKESH PARSHURA
			JADHAV AAKASH KISHOR
			PAGDHARE ANISH DILIP
SEMP12	SEM 3 & 4	Fire Alarm Circuit	KESARKAR ROHAN HARISHCHAN
			BAROT SHYAM GOVIND
			GADHARI VEDANT SHARAD
			PATIL PRASAD RAJEEV
SEMP13	SEM 3 & 4	Automatic Street lights	PATEL ADNAN NISAR
			CHAVAN ROSHAN SHIVAJI
			MALI MITESH VIKAS
			SHAIKH UMER ISHAQUE
SEMP14	SEM 3 & 4	Wireless remote control of PV	BOLKE ROHAN RAMESH
			GUPTA SUMIT SURAJDIN
			MACHHI AMOL JAYHIND
			DHODARE NIVID SURENDRA





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Group No.	Semester	Title of the Project	Name of Student
SEMP15	SEM 3 & 4	Wireless Mobile Battery Charger Circuit	SONAR ANIKET PRAKASH
			AALEKH BHAGAT
			DEEP LATE
			KAMBLE NATH ANAND
			MESTRY VEDANG PRAVIN
TEMP 01	SEM 5 & 6	Anti-Snatching Bag Alarm	PATIL BHAVIN MARTAND TRUPTI
			BALAMURUGAIAH MUKESH BALA
			GIRI PRAVIN RANJEET GAYATRI
TEMP 02	SEM 5 & 6	Portable Variable Power Supply	SONAR LALIT PRAKASH REKHA
			ALI SALMAN MAHBOOB RAEESHA
			KAMBLE SHUBHAM LALASAHEB ROSHAN
			KAP ANUJ RAMAKANT ANITA
TEMP 03	SEM 5 & 6	Lead Acid Battery Charger	KUMBHAR PREMCHANDRA HIRALAL
			MARCHANDE NILESH GAUTAM SHUBHANGI
			ROHIT KARALE
			DARJE SIDDHESH NANDKISHOR SUNANDA
TEMP 04	SEM 5 & 6	Short Circuit Protection Using Relay	DANGODARA DHARMESH JAGDISH BHAI
			MANANI SAGAR RAMESH RAMA
			PARMAR RAHUL BHUPENDRABHAI
			SATAVI YOGESH SURESH SUREKHA
TEMP05	SEM 5 & 6	Smart Sun Tracking Solar Panel	GUJARI ABHINNASUNDAR SITARAM
			GOUNDAR MANOJ SELVAM SHARDHA
			PAWAR YASH SAVALARAM SNEHAL
TEMP 06	SEM 5 & 6	Bus Tracking System	WAVARE ROHIT PRADIP PRAGATI
			GUPTA SURAJ KISHANLAL SANGEETA
			PATIL CHINMAY RAJESH SANGEETA
TEMP 07	SEM 5 & 6	Single Axis Solar Tracker System	PATIL DHANESH SUNIL SUCHITA
			SAVARE VISHAL DILIP GEETA
			PATRA RAJESH TRINATH DAMAYANTI





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Group No.	Semester	Title of the Project	Name of Student
TEMP 08	SEM 5 & 6	Wave Energy Generations	PAShte SEJAL SUBHASH SHUBHANGI
			GUJARE MAHESH UTTAM REKHA
			CHAVAN DIPESH ARUN ANURADHA
			SHINDE ROHAN GOPINATH GEETA
TEMP 09	SEM 5 & 6	Automatic Hand Sanitizer Machine With Temperature Sensor	BAIT SAURABH MOHAN MAMTA
			PATIL PRATIK VIJAY VISHAKHA
			THAKARE PRASAD SUDHIR SUPRIYA
			KATKAR YASHODEEP SHRIKANT SUHASINI
TEMP 10	SEM 5 & 6	Floating Solar Panel	BHATT CHARMY PINAKIN BELA
			LADHAVA KHUSHALI RAMESHKUMAR
			SIRSAT NIKITA BALAWANT SUNITA
TEMP 11	SEM 5 & 6	GSM Based Circuit Breaker	HOLMUKHE AKASH ASHOK GAURI
			DALVI GAURAV GANPAT GEETA
			AREKAR SHUBH PRASAD SNEHA
TEMP 12	SEM 5 & 6	Water Level Indicator	GUPTA RAHUL HARIHAR VIMLA DEVI
			CHAUDHARI ABHISHEK JIVAN SNEHAL
			DHADAGA MOHAN BANDHU KAMU
TEMP 13	SEM 5 & 6	Popping Crosswalk	VARTAK MIHIR RAJIV HEMANGI
			AHIRE MAYURAJ PANDIT SHAILA
			MUKADAM AFFAN ASLAM ISHRAT
TEMP 14	SEM 5 & 6	Speed & Direction Control Of DC Motor By Using Android Application	SINGH KRITI NARENDRA SUNEETA
			SONALKAR SHRUTIKA PANDURANG
			CHAVAN ROHAN VINOD VANITA
			KHADE ATISH AVINASH ASHWINI
TEMP 15	SEM 5 & 6	Speed Control Of DC Motor Using PWM & IC 555	TOKARE DIPESH RAJENDRA SUNITA
			KATELA ANAND GANGARAM SHEVANTI
			MACHHI SIDHARTH SURESH SUREKHA
			CHAUHAN HARSH SURYAKANT PRITI





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Group No.	Semester	Title of the Project	Name of Student
TEMP 16	SEM 5 & 6	Wireless Mobile Battery Charger Circuit	JADHAV PRANAY PRAKASH PRANALI
			GHARAT AJINKYA PRABHAKAR SUNITA
			PATIL ANKIT CHANDRAKANT DEOYANI
TEMP 17	SEM 5 & 6	Automatic Street Light Using LDR	PATIL KOMAL SANDESH SWATI
			PATIL RINKAL KONDU KIRTEE
			RAMTEKE PRERANA PRAMOD SHITAL
TEMP 18	SEM 5 & 6	DC-DC Boost Converter	MALASHE ADWAIT HARISHCHANDRA
			KUBAL PRATHMESH CHANDRASHEKHAR
			VISHWAKARMA AMITKUMAR
TEMP 19	SEM 5 & 6	Solar Tracking System	GAWAI ROHAN ANAND SHASHIPRABHA
			PATEL JIGAR KIRIT RITA
			SANKHE NIKHIL SUDHAKAR SARITA
TEMP 20	SEM 5 & 6	Prepaid Energy Meter & Consumption Alert System.	SINGH PRATEEK SURESH INDU
			SINGH RAHUL ANIL ANJU
			SURYVANSI TUSHAR JAIVANT SUMAN
TEMP 21	SEM 5 & 6	CNC Plotter	PASHTA MITALI VASUDEV VISHAKHA
			PASHTA ASMITA ASHOK ASHWINI
			JANGAM PRANAY PRAMOD PRANALI
			MORE HRITHIK SUHAS MOHINI





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## Internship Details A.Y 2021-22

Sr. No.	Name of the student studied course on experiential learning through projectwork/field work/internship	Company Name
1	AAKASH JITENDRA NAIK	Stech Industries
2	AAKASH SATISH YADAV	Western Railway
3	ABHISHEK JIVAN CHAUDHARI	Dhanashree Rubber Works
4	ADITI S. GIJBILE	Best
5	ADWAIT HARISHCHANDRA MALASHE	R.K Industries
6	AFFAN MUKADAM	Dhanashree Rubber Works
7	AJINKYA PRABHAKAR GHARAT	Dhanashree Rubber Works
8	AKASH ASHOK HOLMUKHE	Adani Dahanu Thermal Power Station (Adtps)
9	AKASH ASHOK HOLMUKHE	Western Railway
10	AKASH HOLMUKHE	Western Railway
11	AMISHA DNYANESHWAR BHOIR	Western Railway
12	AMITKUMAR SUBHASHCHANDRA	Western Railway
13	ANIKET S MURUDKAR	Western Railway
14	ANKIT CHANDRAKANT PATIL	Dhanashree Rubber Works
15	ANUJ RAMAKANT KAP	Western Railway
16	ASHISH BHARAKHADA	Poly Rub Chem
17	ASHUTOSH NITIN VAZE	Blue Star Limited
18	ASMITA ASHOK PASHTE	Global Composites And Structural Limited
19	BHAKTI KHADAYE	Western Railway
20	BHANDARI PRADIP PRAKASH	Savita Transformer Pvt. Ltd
21	BHAVIN MARTAND PATIL	Adani Dahanu Thermal Power Station (Adtps)
22	CHETANA NARAYAN THAKARE	Hindustan Coca-Cola Beverages Pvt. Ltd
23	CHINTU DHAKATYA SHANVAR	Savita Transformer Pvt. Ltd
24	DANGODARA DHARMESH J.	K R Suhagiya
25	DHANESH SUNIL PATIL	High Volt Electricals Pvt Ltd
26	DHRUVESH PRASHANT VANMALI	The Hind Electric & Engineering Corporation
27	DINKAR SINGH	Western Railway
28	DIPESH ARUN CHAVAN	Teamlease Skills University
29	DIPESH RAJENDRA TOKARE	Om Electricals
30	DIPESH RAJENDRA TOKARE	Om Electricals
31	GAURAV GANPAT DALVI	Adani Dahanu Thermal Power Station (Adtps)
32	GAURAV GANPAT DALVI	Central Railway
33	GAUTAM AMIN	Western Railway
34	GHARAT HITESH DINESH	Savita Transformer Pvt. Ltd
35	GOUNDAR MANOJ SELVAM	Dhanashree Rubber Works





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Sr. No.	Name of the student studied course on experiential learning through project work/field work/internship	Company Name
36	GUJARE MAHESH UTTAM	Aditya Industry
37	GUJARI ABHINNASUNDAR SITARAM	Dhanashree Rubber Works
38	GUPTA RAHUL HARIHAR	Rajdeep Industries
39	HARSH SURYAKANT CHAUHAN	K R Suhagiya
40	HARSHAL BHULAN GUPTA	Shakti Metal Works
41	HIRPARA ANKIT	Shreeji Pressure Gauge
42	JADHAV SIDDHI ANIL	Best
43	JIGAR PATEL	Western Railway
44	JITESH ANIL BHUSARA	Savita Transformer Pvt. Ltd
45	KHUSHALI R LADHAVA	M/S Vintech Hindustan Unilever
46	KOMAL SANESH PATIL	Suresh Power Electrical Engineering Company
47	MACHHI SIDHARTH SURESH	Adani Dahanu Thermal Power Station (Adtps)
48	MAYUR CHETAN PATHARE	Western Railway
49	MITALI VASUDEV PASHTE	Global Composites And Structurals Limited
50	NIKHIL SUDHAKAR SANKHE	Aarti Drugs Limited
51	NIKHIL SUDHAKAR SANKHE	Aarti Drugs Limited
52	NIKITA BALAWANT SIRSAT	S R Electricals
53	NIRAJ PAWAR	Savita Transformer Pvt. Ltd
54	PARMAR RAHUL BHUPENDRA	K R Suhagiya
55	PASHTE SEJAL SUBHASH	Aditya Industry
56	PATIL CHINMAY RAJESH	Expert Engineering Consultancy Services (Eecs)
57	PATIL DAKSHAT BHALCHANDRA	Gurukripa Industries
58	PAWAR FALGUNI	Power System Cooperation Operation Limited
59	PAWAR FALGUNI RAMCHANDRA	Power System Cooperation Operation Limited
60	POOJA KIRAN PASHTE	Samarth Aircon Pvt.Ltd
61	PRANAY PRAKASH JADHAVI	Dhanashree Rubber Works
62	PRASAD SUDHIR THAKARE	Adani Dahanu Thermal Power Station (Adtps)
63	PRATHAM RAWOOL	Western Railway
64	PRATHMESH PRAKASH VEKHANDE	Onida, Mirc Electronics Limited
65	PRATIK MAKWANA	The Hind Electric & Engineering Corporation
66	PRATIK RAVINDRA SAWANT	Yogi Electricals
67	PRATIK VIJAY PATIL	Adani Dahanu Thermal Power Station (Adtps)
68	PRATIK VIJAY PATIL	Central Railway
69	PREMCHANDRA KUMBHAR	Dhanashree Rubber Works
70	PRERANA PRAMOD RAMTEKE	Suresh Power Electric Engineering Company





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Sr. No.	Name of the student studied course on experiential learning through project work/field work/internship	Company Name
71	PRIYANKA BHAIKU PAWAR	Techq Konnect Technology Pvt. Ltd.
72	RAHUL RAJENDRA PAWAR	Western Railway
73	RAJESH PATRA	High Volt Electricals Pvt Ltd
74	RAUT KALPIT MANOHAR	Gurukripa Industries
75	RINKAL KONDU PATIL	Suresh Power Electric Engineering Company
76	ROHAN GAWAI	Western Railway
77	ROHAN GOPINATH SHINDE	Best
78	RUSHIKESH KUMAR PATIL	Blue Star Limited
79	RUTIK ANKUSH SHINDE	Maharashtra State Electricity Discom Ltd
80	SALMAN ALI	Western Railway
81	SAMIKSHA HIRAMAN JADHAV	Best
82	SANKET SOPAN PATIL	Blue Star Limited
83	SHARAD GANESH PARADHI	Savita Transformer Pvt. Ltd
84	SHUBH AREKAR	Western Railway
85	SHUBHAM LALASAHEB KAMBLE	Dhanashree Rubber Works
86	SHWETA NARENDRA KAMBLE	Western Railway
87	SINGH KRITI NARENDRA	Airtech
88	SNEHA DEVRAJ POOJARI	Power System Cooperation Operation Limited
89	SOLIM HITESH RAMCHANDRA	The Hind Electric & Engineering Corporation
90	SONALKAR SHRUTIKA PANDURANG	Airtech
91	SURAJ GUPTA	Arrow Electricals India Private Limited
92	SUYASH MANOHAR GOSAVI	The Hind Electric & Engineering Corporation
93	TANAY NARENDRA PIMPLE	Calyx Chemical And Pharmaceutical Ltd.
94	THAKARE PRASAD SUDHIR	Central Railway
95	VELPADA SUREKHA CHINTAMAN	Savita Transformer Pvt. Ltd
96	VINAY UMESH KUMAR UPADHYAY	The Hind Electric & Engineering Corporation
97	VISHAL SHASHIKANT OJHA	Savita Transformer Pvt. Ltd
98	VIVEK ANIL KARWANDE	Western Railway
99	VIVEK ANIL KARWANDE	Western Railway
100	VRUSHALI BHALCHANDRA KUMBHAR	Savita Transformer Pvt. Ltd
101	YASH PAWAR	Dhanashree Rubber Works
102	YASHODEEP SHRIKANT KATKAR	Katkar Electricals





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## Department of EXTC Engineering

### List of Major Project for A.Y 2021-22

Sr.No	NAMES OF STUDENTS	Project Name
1	CHOUDHARY PRAVIN JODHARAM	Peer To Peer File Sharing
2	KESARKAR MOKSHADA SHYAMSUNDAR	
3	JADHAV TEJASHREE CHANDRAKANT	
4	KAMBLE PRADNYA SANJAY	Online Unused Medicine Donation
5	SAVE ANUSHKA MANOJ	
6	PATIL MANSI TULSHIRAM.	
7	MISHRA NILESH K	Magic Hands For Deaf And Dumb People
8	RAUT VIKAS	
9	SHEMANKAR SANKET	
10	KENI SHUBHAM RAJENDRA.	Criminal Detection Using Face Detection
11	VAZ SANJIT ROBIN.	
12	RABADE MIHIR PRASKASH.	
13	BHILARE AMIT	Face Recognition + Attendance System
14	PATIL TRUPTI	
15	PUJARI PAYAL	
16	GAWDE NARAYAN	
17	TRIPATHI AMAN	Human Benchmarking
18	SHAIKH TAHIR	
19	MISTRY MIHIR	
20	RAVAL MEET NILESH	Tenant Intimation And Information System
21	JOSHI SAUMYA BHAVESH	
22	PATEL JANVI ASHWIN	
23	KHADYE TRUPTI ANKUSH	Real Time Sign Language Detection
24	NAMAL SOUNDARYA SANJAY	
25	YADAV KRITI AMBIKA	
26	TAMBE SHALAKA	Pick Us Up App
27	PRIYA TIWARI	
28	TAMBE SIDDHESH	
29	KAMBLE VAIBHAV	Accelerometer Based Hand Gesture Controlled Robot
30	GAWADE RAVINDRA	
31	KANU VIJAY	
32	MOHILE MANTHAN	Speech Recognition Using Python.
33	PAWAR TANVI	
34	PATIL AISHWARYA	
35	GARUDI VINAYAK,	Tour Recommendation System
36	JADHAV MITALI	
37	KOTIAN DIVYA	
38	NAIDU NIKHIL CHANDRASHEKHAR	Empowering Applications With Easy To Integrate Blockchain
39	BOMBLE AAKANKSHA BHARAT	
40	PADAVE PRERNA	
41	KAWALI MEET MAHESH	Voice Control Car By Using Arduino With Variable Speed
42	HEMANT CHAUDHARI	
43	GANESH WAGHE	





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44	TRIPATHI AKASH	Decentralized Social Media And Messaging Using Blockchain
45	KADAM RIDDHI	
46	THOTA REETHIK	
47	BHOIR RAJ MARUTI	Smartphone Oprated Multi
48	DINGORE HITESH SURESH	
49	JADHAV ADITYA SANJAY	
50	GHARAT HRUTIK ANIL	Rf Energy Harvesting
51	GUPTA AASHISH	
52	JHA RISHIKESH-	
53	KHANDAGALE DHAVAL	
54	MORE SAHIL	Sentiment Analysis Using NLTK
55	HODGE ROHINI BALU	
56	BHOIR HARSHAL DHARMENDRA	
57	RAUT HARDIK SHARAD	
58	REEMA YEDGE	Automation Of Ration Shop
59	NIKAM HARSHIKESH	
60	SAWANT HARSHAD	
61	SAWANT HRUTIKESH	Beatstream
62	NAIK GOVIND RATNAKAR	
63	PRASAD POOJA AWADHKISHOR	
64	TIKAM MADHAV AVIKANT	
65	VERMA ADITI KAMLESH	Covid Fighter Robo
66	ASWANI TANVI BHAGWAN	
67	GUPTA DIPKUMAR RISHIDEV	
68	MAURYA AMAN SHARAD	Dry Handwash Disinfection Using Fogg
69	MISHRA VIVEK	
70	ROHIT KHANDAGLE	
71	NITESH MISHRA	





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## Department of Extc Engineering

### List of Mini Project for A.Y 2021-22

Sr. No	NAME OF STUDENT	MINI PROJECT
1	NITESH CHANDURKAR	Touchless Door Bell Using NOR Gate
	KRUTIKA PENKAR	
2	DHRUMIL CHAUHAN	Industrial Control System Using OR Gate
	OMKAR CHOUDHARI	
3	RUTIK KINI	DEVICE FAILURE ALARM SYSTEM USING NAND GATE
	DEEPAK RAMAVATAR BIND	
4	NIKITA SHIVRAM KUBAL	SEAT BELT WARNING SYSTEM USING BASIC AND & NOT GATES
	ONKAR VIKAS PETHE	
5	AKSHAY PALKAR	Smart Car Parking System Using FPGA By Using 2-Bit Counter
	MEGHA KINI	
6	PRANAY CHANDRAKANT MOHITE	TEMPERATURE DETECTOR USING NOT GATE
	ABDULKADIR SHABBIR SADRIWALA	
7	SACHIN UMASHANKAR TIWARI	4:1 MULTIPLEXER
	SAURABH AGRE	
8	ANJALI GUPTA	Flood monitoring and alerting system
	POORTI NAI	
9	SHUBHAM MAYEKAR	Landslide Alert System
	VISHAL PANDEY	
10	SAINATH MORE	Smart Medicine Box
	NITESH CHANDURKAR	
11	PRANAY MOHITE	Automatic Solar Panel Cleaning System
	KRUTIKA PENKAR	
12	SACHIN TIWARI	Smart Irrigation System
	OMKAR CHOUDHARI	
13	MEGHA KINI	Smart Room for Senior Citizens
	RUTIK KINI	
	AKSHAY PALKAR	
	SAURABH AGRE	
	DHRUMIL CHAUHAN	
	ANJALI GUPTA	
	POORTI NAI	
	ABHISHEK KHANDEKAR	
	AMAN KUTREKAR	
	MRUNALI PATIL	
	ABDULKADIR SADRIWALA	
	HARSH PUROHIT	
	ANIKET YADAV	
	PANDYE VISHAL	
	KHANVILKAR VISHWESH P.	
	MAYEKAR SHUBHAM	
	TIWARAMKAR NAYAN A.	





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Sr. No	NAME OF STUDENT	MINI PROJECT
14	DEEPAK BIND	Brainwave controlled Wheelchair
	NIKITA KUBAL	
	ONKAR PETHE	
15	RUSHIKESH ANNA GHUGE	Light Sensetive Switch Circuit
	ANANTA CHANDRASHEKHAR PISAT	
	PRASHANT SURESH WADEKAR	
16	RUSHABH SHASHIKANT NIKAM	Single Stage Rc Coupled Ce Amplifier
	SHUBHAM GANESH PATIL	
	AASAVAREE PRADEEP RANE	
	BHAGYASHRI SANJAY ZINJURDE	
17	SUNNY PAWER	Ir Proximity Sensor Touchless Door Bells
	BHAVIK RAUT	
	ASHISH THAKUR	
18	AMEY PANCHAL	Water Level Indicator
	HRUSHIKESH SANKHE	
	AMIT VISHWAKARMA	
	MIHIR SOLANKI	
19	MANALI MAHESH KADAM	Automatic Switch - Off Battery Charger
	OMKUMAR KRISHNAMOHAN MISHRA	
	JATIN RAJENDRA TIWARI	
	ZHIL RAJESH VORA	
20	CHINMAY ARUN GAWANDE	Non Contact Ac Voltage Detector
	SAYANNA SAAGAR MUKHARJEE	
	VIKAS RAMLAUT PAL	
	SOURAV SANAT SAMANTA	
21	SUNNY PAWAR	Automatic Rain Sensing Wiper Using Arduino
	BHAVIK RAUT	
	ASHISH THAKUR	
22	RUSHIKESH ANNA GHUGE	Laser Light Security System Using Arduino
	ANANTA PISAT	
	PRASHANT WADEKAR	
23	RUSHABH NIKAM	Social Distancing Indicator And Alarm System Using Arduino
	SHUBHAM PATIL	
	ASAVAREE RANE	
24	PUSHPAK KHANDAGALE	Arduino Based Password Doorlock System
	YASH VENGURLEKAR	
	MAYUR PATIL	
25	CHINMAY GAWANDE	Distance Measurement Using Arduino
	SAYANNA MUKHERJEE	
	SOURAV SAMANTA	
26	VIKAS PAL	Automatic Traffic Signal With Arduino Uno
	BHAGYASHREE ZINJURDE	
	MIHIR SOLANKI	
27	AMEY PANCHAL	Arduino Based Obstacle Detection By IR Sensor
	HRUSHIKESH SANKHE	
	AMIT VISHWAKARMA	
28	MANALI KADAM	Alarm System By Interfacing Arduino With Temperature And Gas Sen
	MISHRA OM	
29	JATIN TIWARI	Arduino Based Gas Leakage Detection
	ZHIL VORA	





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**Internship Details A.Y 2021-22**

Sr. No.	Name of the student studied course on experiential learning through project work/field work/internship	Company Name
1	RUSHABH SHASHIKANT NIKAM	Internshala
2	SIDDHESH SITARAM TAMBE	Entrepreneurship Cell, IIT Bombay
3	PAYAL PRAKASH PUJARI	Regtex Associate
4	PAYAL PRAKASH PUJARI	Rich Floraaz Pvt Ltd.
5	SHUBHAM GANESH PATIL	Vapcon Manufacturing Engineers
6	ABDULKADIR SADRIWALA	Tcr Innovation
7	MIHIR SOLANKI	Abacus Educare Pvt. Ltd.
8	SACHIN UMASHANKAR TIWARI	Gravity Techno
9	ZHIL RAJESH VORA	Abacus Educare Pvt. Ltd.





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## Department of Mechanical Engineering List of Major Project for A.Y 2021-22

Sr.No	NAMES OF STUDENTS	Project Name
1	SABLE CHETAN BHAGVAN RATNAMALA	Design and Fabrication of Automated Scavenger Sewage Machine
	SAHANI PREM NARSINGH KAMPADEVI	
	NAIK PRAJYOT VIJAY VIDYA	
	SHINDE ABHISHEK GANESH BHARATI	
2	RANE HARSH MAHESH SHUBHA	Indoor Vertical Hydroponic Farming Unit
	PAWAR SAIL SURESH KANCHAN	
	SHAIKH HUZAIFA NASIR SHAISTA	
	SHAH TEJ BHAVESH PURVI	
3	UTEKAR HARSH MANGESH SEEMA	Design and Fabrication of Ploughing, Seeding And Harvesting Machine For Agricultural Purposes
	VASAVE VRUTIK PRABHAKAR ANNA PURNA	
	VICHARE ABHISHEK VIJAY VIDYA	
	VAJANDAR PRATIK VIVEK NISHA	
4	THAKUR JAY ASHOK SANDHYA	Design and Fabrication of Organic Waste Recycler
	THAKUR OM NILESH SUJATA	
	VARTAK ATHARVA SANJYOT SONALI	
	SANKHE VARUN RAJENDRA RAKSHA	
5	PARULEKAR OMKAR JAYWANT ROOPAM	Design and Fabrication of Air Conditioner For Heavy Duty Vehicles
	PATEL HARMISH BALWANT RANJAN	
	PATIL OMKAR CHANDRAKANT BHARTI	
	UPADHYAY SONAM SUBHASH KARUNA	
6	PATIL ROHIT HARI BHARTI	Design and Fabrication of Solar Operated Winnowing Machine For Grain Cleaning
	PATIL SAURABH MUKESH MAYURI	
	PATIL VAIBHAV SAKHARAM SUVARNA	
	PAWAR AMEY SUNIL SUJATA	
7	SHIRODKAR SARVADNYA KAUTUK UJJWALA	Fabrication of A Manual Transmission E-Bike
	VANJARE OMKAR MADHUKAR MADHURI	
	SAKPAL HITESH MAHADEV KALPANA	
	PATEL YASH PRADIP USHA	
8	DALVI VAIBHAV EKNATH KALPANA	Design and Manufacturing of Flexible Hopper Feeder For Molding Machine
	MAHYAVANSHI JAYESH RAJESH KUSUM	
	LOKE ROHIT GOVIND GEETANJALI	
	JUJAR SUSHMITA KRISHNA KAVITA	
9	PANDEY MANGAL PASHUPATINATH CHINTAL	Design and Fabrication of Dolly Wheel For Automobiles
	VYAS HARSH DHAVAL SHIVANI	
	VENGURLEKAR SIDDHESH DEEPAK DEEPAI	
	PALAV SIDDHESH SURENDRA SUPRIYA	
10	CHAUDHARI RIDDHESH NITIN NIDHI	Design and Fabrication of Multipurpose Mini Fork Lift
	KADAM PRATHAMESH MAHESH MAMATA	
	KIJBILE PRATIK PRAKASH PRATIKSHA	
	BHISE JAY PRASHANT BHARATI	
11	KADU JIGNESH VISHNU SNEHAL	NSDC - HVAC design for a Multi-speciality hospital building
	BONDRE DHEERAJ SANJAY SWAPNALI	
	KURADE PRASHANT SHIVAJI SHUBHANGI	
	CHAVAN OMKAR ARJUN ARTI	





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12	KHAN MOHAMMED KAIF ABDUL MANNAN NAZMA	Design of Air Conditioning and Ventilation System For Health Care Facility
	KUMARE NABHOD MALESH SANGEETA	
	MAHAMUNKAR NEERAJ VIJAY SIDDHI	
	JAIN ANIRUDDHA ROSHAN REKHA	
13	SAKHARKAR SAISH SUBHASH SAYALI	Design, Analysis and Additive Manufacturing of Print in Place Compliant Suspension System
	VASAIKAR ANUJ DEEPAK AARTI	
	YADAV ANKIT RAJNATH GAYATRI DEVI	
	SHELAR HARDIK UJWAL VIJAYA	
14	JAMBHALE SHILPA SHANTARAM SHUBHANGI	Optimum design and analysis of pressure vessel in ansys for industrial use
	JANI VIDHI PRAKASH BHAVANA	
	DESAI SAURABH NAMDEV VANDANA	
	BHASARA NITIN DINESH SANGITA	
15	SAWANTBHONSALE GAURAV SUBHASH SAYALI	Design and Fabrication of Semi Automatic Baking machine
	SHAPARIA CHINTAN VIJAY CHANDRIKA	
	SAWANT CHAITANYA RAVINDRA RASHMI	
	SOLANKI CHIRAG NARESH RASHMI	
16	KHOPKAR MAYURI CHANDRAKANT CHARULATA	Performance Analysis of Two Wheeler Vehicle Fins Using Ansys
	JADHAV MADHAVI RAVINDRA RAJANI	
	GAWANDI AISHWARYA ANANT AKSHAYA	
	DASONI ADITYASINGH RAJAN MANJU	
17	DHUNDALE SHUBHAM SURESH SUNITA	Semiautomatic Rice Transplantation Machine
	GAIKWAD AKASH RAVINDRA LAXMI	
	GURAV ONKAR ARUN ARCHANA	
	DEVALE PANKAJ GANESH MANDA	
18	GAUTAM SACHIN PARAS FULMATI	Design, analysis and optimization of an All Terrain vehicle
	KHULE PRASAD SUHAS SUHASINI	
	AHER TUSHAR YASHWANT MANGLA	
	KARBAL DEEPAK BHALCHANDRA MALAN	
19	CHAVAN NISHANT RAMESH RASHMI	Waste Heat Recovery from Air Compressor and it's Utilization for Reducing Fuel Consumption of Boiler. (LUPIN LTD., M.I.D.C. Tarapur, Palghar)
	DANDGAWHAL GRANTHALI SAGAR MANISHA	
	LOKHANDE HARSH ASHOK ASMITA	
	JADHAV NILESH DIGAMBAR CHANDRAKALA	
20	THAKARE BHAVIK SANJAY SAMIDHA	Design and Fabrication of Cash Sanitizing Machine.
	PAWAR ABHISHEK SANJAY MANISHA	
	SUTAR NITESH ARJUN SUBHADRA	
	RANE NISHANT SATISH SNEHAL	
21	GHATOL SRUSHTI SURENDRA VARSHA	Frontal crash analysis of different vehicles
	HARPALE SANDIP VANSHA SUKARI	
	DUBEY AMBRISH PRADEEP SHASHI	
	MARAVAR MAHARAJA VENKATACHALAM BALA	
22	PATIL RAHUL BHAGWAN SUNITA	Design and Manufacturing of Semi -Automatic Floor Cleaner
	PATIL SANKET SHIVAJI SUJATA	
	NARKAR PARAS RAVINDRA RAJANI	
	NARVEKAR ADITYA PRASHANT NILIMA	
23	NAYAK SHIVAM UMESH MAYA	Design & Fabrication of Automatic Paper Cutting and Punching machine Using Geneva Mechanism
	UPADHYAY ABHISHEK ARVINDKUMAR SHASHIDEVI	
	MISHRA KRISHNA SHASHIBHUSHAN REETA	
	PALAV DAKSHA VAIBHAV VAISHALI	





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24	JOGALE YASH ANIL ASMITA JAJAL GOPESH SANDEEP GEETA KADAM ROHAN PRAVIN PRIYANKA KURADE ABHIJIT GANAPATI PRATIBHA	Smart Shopping System
25	GUPTA ABHAYKUMAR SITARAM SUNITA GOTPAGAR MANISH GAUTAM KALPANA CHAWDA YASH BHARAT TORAL BHOSALE DIPAK ASHWATHAMA NEETA	NSDC-Design of Air Conditioning System For A Multi Facilitate Hospital
26	SAWANT NINAD VIJAY MANALI PARAB SAHIL SANJAY SANDHYA PATIL AMIT VASANT SUMAN MOURYA YOGESH MADANLAL MAGAN	Design and Material Optimization of Brake Disc with Heat Analysis
27	KHEDEKAR SAHIL SUNIL SUCHITA KHATAL BHAVESH KISHOR SHOBHA KENI MILIND GOVIND SANGEETA KHARAT RAHUL SUKHDEV ANITA	Electric Power Tiller
28	BORKAR OJAS DIPAK PRAFULLA DHEKANE KUNAL KISHOR KARUNA HARNE JAY ANIL AMRUTA BHUJANG ANIKET BALASAHEB BABITA	Design And Fabrication Of Semi Trailing Arm Suspension System For E-Baja Vehicle
29	ANSARI AFZALHUSAIN RAMZANALI ZARINA KHATUN GUPTA MAHESH RAJKUMAR GEETA GAIKWAD AMIT ARUNKUMAR LATA DONGARKAR MAHESH SUBHASH SUMITRA	Design and Development of Automatic Cattle Feeder Setup
30	GAWAD SATYAM RAGHUNATH RACHANA HOTA PRITISURAVI PRASHANTA SHRADHANJALI JADHAV OMKAR AVINASH ARTI KADAM KAUSTUBH SHRIKANT JAYASHREE	The Agro Waste Crusher
31	MITHARI SMIT PRADIP UJWALA NAIK DHAVAL SUDHIR SEEMA PATIL KRUNAL VIKENDRA VAJJAVI THAKUR POOJA HARESHWAR VAISHALI	NSDC-Design of HVAC System For Multi Speciality Hospital
32	VARTHE PRATIK ANIL ASHWINI SHINDE NIKHIL BABURAO NEELA VHADADE AMIT SHRIPATI SHITAL PANCHAL URMIC DINESH BHARTI	Design and Fabrication of Solar Panel cleaning Wiper
33	GONDHALEKAR AKSHATA PRITAM SUJATA KAMBLE SANKET LAHU JAYSHREE KARANDE AKASH ANIL BHARTI ATTAR MOHD HUZAIF MOHD IRFAN SAJJIDA	Solar Based Refrigeration System
34	CHORGHE RAJ DINESH NITA KOKALE KHYATI RAJESH CHHAYA CHAVAN SHREYAS SAMEER SAMIKSHA JADHAV BHAVESH ASHOK NIRMALA	Implementation of Poka-Yoke on Effective System
35	CHAPHE PRANAY SATISH SHUBHANGI ADIVAREKAR VISHAL ATMARAM AMITA MHATRE JAY RAJESH MADHURI BURUTE OMKAR SATISH MANGAL	Design and Development of Frictionless Brake





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36	PANCHAL SHUBHAM UDAY ANAMIKA	Artificial intelligence in Manufacturing
	MORE VISHAL PANDURANG GEETA	
	PATIL HIMANSHU ARUN CHANDRIKA	
	THAKUR ARPIT NANDKUMAR VIMLESH	
37	KATE SHUBHAM MAHENDRA SWAPNJA	Design And Analysis Of All Wheel Drive ATV
	KARVIR CHINMAY CHANDRAKANT UMA	
	PATIL GAURAV BANSIDHAR VINAYA	
	PATIL MRUNAL SHIVAJI SANGITA	
38	MHATRE NIHAR UMESH RUPALI	Analysis and Simulation of Converting ICE Vehicles To EV
	PARATE MANISH PURUSHOTTAM PUSHPA	
	PATIL VIPUL VILAS YASHODA	
	PATWA ABHISHEK SANTOSH VIJYA	
39	KUVALEKAR RIDDHI NARAYAN ANJALI	Design and Simulation of RC Cargo Airplane
	MANKE CHETAN SANJAY KALPANA	
	GAONKAR SHUBHAM DASHARATH DARSHANA	
	KATELIYA HITESH GOVINDBHAI SAVITA BEN	
40	PATIL POOJA RAJENDRA UJWALA	Manufacturing and Simulation of RC Cargo Airplane
	SAWANT ANIKET ANKUSH ANKITA	
	SHINDE TANMAY SUNIL AARTI	
	SINGH YAMISH RAJESH MANJU	
41	JADHAV SHUBHAM SUNIL BHARTI	Contactless Eddy Braking System
	JADHAV TEJAS SHRIPAT SUNITA	
	SALKAR YASH PRAMOD PRACHI	





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## Department of Mechanical Engineering

### List of Mini Project for A.Y 2021-22

Group No.	Semester	Title of the Project	Name of Student
1	V & VI	Design and Fabrication of Slicer and Juicer Machine	ARPIT VANESHWAR GAWAD
			PRATHAMESH SUDHAKAR JANGAM
			SIDDESH DILIP MEHER
			PRANIT SUBHASH MHATRE
2	V & VI	Automatic Water Overflow Cut-Off Circuit	DHRUV KALPAK KAWLI
			NIMISH CHANDRAKANT GHARAT
			GAVIN DOMINIC MATHAK
			ATHARVA MILIND KULKARNI
3	V & VI	Dual Nozzle Leg Operated Pesticide Sprayer	RAHUL KASHIRAM BHUVAD
			AADITYA ABHIMANYU MANE
			BHAVESH RAJENDRA KOTKAR
			SHUBHAM MOHAN GOGAVALA
4	V & VI	Mini Flour Mill and Dough Maker	ADITYA RAJESH NEVREKAR
			SHUBHAM PRAKASH KANGANE
			RITIK DNYANDEV AAYARE
			ANIKET RAJENDRA MALANKAR
5	V & VI	Automatic - Vehicle Validation System	MANDAR HANUMANTA KOLI
			KEYUR VINOD DATTANI
			OMKAR VISHWANATH CHIKHALE
			MANGESH VISHWANATH KINI
6	V & VI	Fabrication of Pedal Operated Water Pump for Agricultural Purpose	SAHIL SANJEEV MATHKAR
			DHAVAL DINESH MORE
			VYANKATESH GANPATI BHINGUDE
			RUCHIK BABU DEVGANIA
Group No.	Semester	Title of the Project	Name of Student
7	V & VI	Box Transport Mechanism	NIKHILESH SIDHARTH MAJALKAR
			ASHOKKUMAR MUKHRAM CHAUHAN
			KUNAL MAHESH MARDE
			HARSH KAILASH MORE
8	V & VI	Automatic Road Cleaner	RAJ KIRANKUMAR NAIR
			DEVENDRA RAVI DORKAR
			SIDDHESH GANPAT NEMAN
			AAKASH PARESH CHAUHAN
9	V & VI	Design and Fabrication of Mini Jigsaw	MOHD SAAD
			BOGATI GYANENDRA
			ANSARI TAFSIR
			MISHRA AAKASH
10	V & VI	Product Transfer Mechanism	LAUKIK PRAVIN JAHIR
			OMKAR SUBHASH BARI
			SAIRAJ VINAYAK KHOT
			RAHUL RAJU HIWALE





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Group No.	Semester	Title of the Project	Name of Student
11	V & VI	Smart Watering System	NEERAJ NANDKISHOR AYRE
			SIDDHESH SUNIL DHARSHE
			SAHIL RAJENDRA KINI
			SANKET GAJANAN NANDEKAR
12	V & VI	Speed Breaker Power Generator	SURAJ RAMDAS BHOGADE
			VIJAY SANTYA GORWALA
			AJAY PRAKASH GORWALA
			MILIND MAHESH DUBALA
13	V & VI	Design and Fabrication of Equipment to Generate Electricity Through Flow of Water	AATIF BILAL HAJU
			JOHN SUJITH SAJI
			AMARJEET RAMCHANDRA KANNOJIA
			SWAPNIL PANDURANG GURAV
14	V & VI	Design and Fabrication of Automatic Roti Maker Machine	ADITYA AJIT AHIRE
			ONKAR PANDURANG HELONDE
			SHUBHAM JAYCHANDRA GAWAND
			MOMIN AMAAN AHMED MOHD ASIF
15	V & VI	Regenerative Braking System	NILESH BHASKAR MANE
			RAVIKUMAR SWAMINATH JAYSWAL
			FAISAL MOHD SHAIKH
16	V & VI	Mini Table Saw	BHARBHARE SACHIN KISAN LAXMAN NIRMALA
			BHATT HARSH VINOD JAYMALA
			KANDOLKAR AMAN TULSIDAS TEJASHREE
17	V & VI	Design and Fabrication of Motion Sensor Light	DHAS SUYASH LAXMAN JYOTI
			DIAS SEON SANJU IDA
			MAURYA LAV LALLAN CHANDRADEVI
			KINI SAURABH SHASHIKANT SHITAL
18	V & VI	Portable Handwash Sink	DONGRE PRATHAMESH GOPAL RENUKA
			CHAVAN OMKAR VILAS VINITA
			GUPTA ANIKET PARDESHI SUNITA
19	V & VI	Multi Nut Tightner	MAURYA ARUN KUMAR HOUBLAL SUSHMA
			GUPTA ANUJ VINOD ASHA GUPTA
			KALLEPAWAR SUNIL CHANDRAKANT ANITA
			BHOIR KUNAL ARVIND ARCHANA
20	V & VI	Arduino Operated Portable Hammering Machine	DHRUV KRUTIN PATIL
			VEDANT AJAY SHAH
			VEDANT SACHIN THAKUR
			SATYAM CHANDRESH SINGH





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Group No.	Semester	Title of the Project	Name of Student
21	V & VI	Fabrication Of Mini Screw Driver, Drilling and Grinding Machine	AFRAZ ILYAS SHAIKH
			PAREN RAJU TRIVEDI
			CHIRAG SANDEEP VARTAK
22	V & VI	Hydraulic Based Coconut Husk Peeling Machine	ISHAN SANDEEP PATIL
			NIRBHAY JAYVANT PATIL
			SANDEEP SANJAY RAHATE
23	V & VI	Automated Irrigation System	AMOGH LAXMAN TARE
			NAWAZ NISAR SAYYED
			HIMANSHU ANIL RAI
24	V & VI	Water Overflow Alarm	OMKAR DASHRATH SALVI
			PRANESH SANJAY PADVEKAR
			CHINAR SURESH PATIL
25	V & VI	Design and Fabrication of Water Tank Cleaning Machine	SAARTH SANJAY PATIL
			VINIT AJIT PATIL
			CHINMAY ARUN VARTAK
26	V & VI	Electromagnetic Breaking System	AMAN SACHIN PANDEY
			ADITYA ATMARAM PHATAK
			DARSHIL BATUK RATHOD
27	V & VI	Water Purification	AJAY RAKESH SINGH
			ANIKET PRAKASH VAITY
			ADITYA HEMANT SANKHE
28	V & VI	Swing Electricity Generator Mechanism	SAYALI MILIND PATIL
			VAISHNVI MANOHAR PATIL
			AKSHAT DINESH RATHOD
29	V & VI	Pneumatic Arm Hammer Attachment with Nail Puller	SAHIL JAGDISH SURVE
			ROHIT RAVINDRA SAPKAL
			CHIRAG UMASHANKAR PATEL
30	V & VI	Frictionless Brakes	YASH SATISH PALANDE
			HRITIK SHRIKANT RANE
			RUTIK RAVINDRA TARAL
31	V & VI	Geneva Mechanism for Filling of Containers Synchronously	SHRUTIKA SURESH JUVALE
			MONU HARISHCHANDRA YADAV
			CHANDAN YADAV
32	V & VI	Recycled Plastic Bricks Making Machine	SHUBHAM SHIRKE
			PARTH VINODBHAI PAREKH
			KAMLESH DADASAHEB TAMBE
			ROHAN MAHENDRA PARMAR
			ANIKET MANIKRAO PATIL
			AFTABALAM FARUKH SIDDIQUE
			VIRAJ MAHESH PENDURKAR
			ASHUTOSH ASHOK PATIL
			KAUSTUBH ARJUN RANE
			SUYASH GAJANAN SALUNKHE
			HRISHIKESH SUDHIR NIMBALKAR
			JALPESH JITENDRA SOLANKI
			ASHISH SUHAS TANDEL
			ABHISHEK OMPRAKASH TIWARI





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Group No.	Semester	Title of the Project	Name of Student
33	V & VI	Mini Belt Grinder	JAYESH DATTATRAY RANJANKAR
			YASH MOHAN PATIL
			ANAS ABRAR SHAIKH
			PRATIK VILAS TARE
34	V & VI	Multi Spindle Nut Opener & Remover	VEDANT MANOJ VARTAK
			MAYANK RAJNIKANT RAUT
			SHUBHAM ROHIT PANCHAL
			VAISHANVI SATISH PATIL
35	V & VI	Design and Fabrication Of Homemade Waterpump	MANINDER SINGH RAVINDER SINGH SURME
			RAJ RAVI SAWANT
			PRASAD VIJAY JAGDISH VIMLESH
			PANDEY NAVNISH RAJKUMAR SEEMA
36	V & VI	Design and Fabrication of Line Following Robot Using Arduino	SIDDHESH MANOHAR SAWANT
			TEJAS KIRAN TADE
			RATNESHKUMAR BHUPENDRA SHRIVASTAVA
			PRASAD SHUBHAMRAJ RAKESH ANJU
37	V & VI	Power Generation by Rack and Pinion Mechanism	BHAVESH JAYDEV PATIL
			SAHIL VINOD PATIL
			OMKAR RAMDAS PADAVE
			KASHISH RAJIV SHAH
38	III & IV	Bottle Washer	THAKUR SWASTIK SANTOSH SNEHAL
			RAUT PAURAS AMIT AMISHA
			VARMA ANIL RAMASARE MALTI
			SHAIKH MOHD AAMIR MOHD YUSUF SAMEENA K
39	III & IV	Tv Dish Protector	MORE SUNNY VINOD SUNANDA
			RAJAGE AMAR RAJENDRA KAVITA
			KENDRE MANISH
40	III & IV	Coupling Rod Of Locomotive	HEGDE ANOOP SURESH SHEELA
			JAGTAP SARANG BHUPENDRA ASMITA
			MIA TANVIR SULTAN MIA SAKILA KHATUN
			MOHAMMED AZEEM GAZNAVI NAJMA ANJUM
41	III & IV	Watt Indicator Mechanism	BIJUTKAR VEDANT DHANANJAY JAGRUTI
			DAS BUNTY GOVIND KAKULI
			DAS RAHUL ALOK SUBHRA
			KALE ATHARVA BHUSHAN MADHURAKSHI
42	III & IV	Pantograph	AHIRE NIRANJAN DEEPAK JYOTI
			BODAKE GAURAV KALYAN VAISHALI
			MANDHARE SHIVAM DILIP SUVARNA
			MANJAREKAR SAHIL BHARAT SMITA
43	III & IV	Pendulum Pump	ADAWADE PRERIT PRASHANT POOJA
			KALEKAR SUYOG SHASHIKANT SHITAL
			MALVI SWARAJ ARUN LATIKA
			MANDAVKAR KUNAL PRAKASH SARITA





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Group No.	Semester	Title of the Project	Name of Student
44	III & IV	Oscillating Cylinder Engine	BHATE YASH ZUNJAR BHARATI
			CHAUDHARI PRABHAS HEMANT HEMANGI
			KADAM AAKASH SANDEEP SARIKA
			MAHADIK TEJAS ANANT ANKITA
45	III & IV	Rotary I.C. Engine	ANSARI FAHIM ABDUL REHANA
			GAIKWAD MALHAR RAJESH SHUBHANGI
			KAKDE PRATIK KUNDAN PRATIKSHA
			MAURYA ANANDKUMAR GANESH SAROJ DEVI
46	III & IV	Crank And Slotted Lever Quick Return Motion Mechanism	GAWALI SAHIL SANDEEP SMITA
			KASARE VARUN SAGAR VAISHALI
			KAWLI VARUN BHARGAV SHUBHANAGI
			LAD SWAPNIL SURESH SAYLI
47	III & IV	Withworth Quick Return Motion Mechanism	BARSAMWAR SWARUP BALIRAM SUNITA
			KADAM ANIKET ANKUSH SHARMILA
			KADAM TUSHAR ANKUSH SHARADA
			KAMBLE TRUNAL TULSHIDAS MINAKSHI
48	III & IV	Elliptical Trammels	AHIRE YOGESH SAMBHAJI SARLA
			KHEDEKAR RUPESH RAMESH ROSHANI
			KOLTHARKAR HIMANSHU HEMANT PRANALI
			MASURKAR AMIT KASHIRAM MALTI
49	III & IV	Scotch Yoke Mechanism	CHAUDHARI DEVANG MANISH NUTAN
			CHAUHAN KAMAL RITESH N CHAUHAN JIGISHA
			KINI JAY SHANTARAM NUTAN
			KUDU ASHISH ASHOK CHITRA
50	III & IV	Peaucellier Mechanism	BHOWAD SIDDHESH SANTOSH SUCHITA
			GAWALI BHAVESH LAXMAN KUSUM
			LAD ASHUTOSH KRISHNA ARUNA
			MADHA SANJAY RAMU GULAB
51	III & IV	Hart's Mechanism	KAMBLE HIMANSHU RAVINDRA DARSHANA R
			MOHITE KAUSHAL MILIND NISHA
			ANSURKAR PRADNYESH SUNIL PRAJAKTA
			KENGAR ASHISH DADASAHEB SUVERNA
52	III & IV	Grasshopper's Mechanism	GHARAT DHEERAJ RAMDAS PUSHPA
			GAVAS BHAVESH DHANANJAY PRIYA
			MATHKAR RUCHIT PRADEEP PRADNYA
			BANSOD YASH DEVANAND BABITA
53	III & IV	Tchebicheff's Mechanism	BIND SHIVA LALBAHADUR SEETA DEVI
			CHRISTIE YASH SUNIL HEMA
			CHUNDAVATH DURGASINGH GOPALSINGH P
			DIGASKAR JATIN PRAFUL VAISHALI
54	III & IV	Beam Engine	GAWAD JAY DEVENDRA SHOBHA
			HAIDER GULAM MD IBRAR ANSARI SAJDA K
			JADHAV ABHISHEK SUMAN SHWETA
			JOIJODE YASH GANGADHAR DEEPA





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Group No.	Semester	Title of the Project	Name of Student
55	III & IV	Beam Engine	KANADIYA SAGAR PANKAJ GEETA
			KAR YASH JAYANTIBHAI BALA BEN
			KAWALE SIDDHESH SANDEEP SAYALEE
			MACHHI RONI GANESH TEENA
56	III & IV	Coupling Rod Of Locomotive	MOHITE RIDDHISH SANJAY SANGEETA
			PIMPALE MAITREYA KESHAV KALPANA
			PITNAIK ROHIT SANJAY SANJANA
			SHUKLA SWASTIK MURLIDHAR VINEETA
57	III & IV	Watt Indicator Mechanism	SAVE KANAK NILESH TANUJA
			SAWANT VINAY KRISHNA PRAGATI
			THAKUR SMIT YOGESH SHILPA
			TORASKAR SIDDHANT VAMAN VAISHALI
58	III & IV	Pantograph	NAIR INDRAJIT HARIKUMAR SINI
			PAGDHARE PARAS ANIL GEETA
			PAWAR PRATHAMESH VILAS POOJA
			SAWANT TEJAS LAXMAN SNEHAL
59	III & IV	Pendulum Pump	PRAJAPATI PRACHITI GANESH SHILPA
			RAUT MANISH SATISH SMITA
			SAMANT NINAD KISHOR GAYATRI
			TIWARI UTKARSH RAVINDRA POONAM
60	III & IV	Oscillating Cylinder Engine	PARAB MANAS DILIP DIPIKA
			PEREIRA ANSON CLICKSON BENETIN
			SHAIKH RAEES SHAFIQ RABIYA
			TAMBE KAILAS VIKRAM SHARDA
61	III & IV	Rotary I.C. Engine	PAWAR HRITIK MANGESH MITA
			PAWAR SAGAR ATMARAM SUNANDA
			REWALE OMKAR VIJAY RUTUJA
			TAMBE RUSHIKESH VIJAY VIJAYA
62	III & IV	Crank And Slotted Lever Quick Return Motion Mechanism	PALKAR OMKAR SHANKAR SUJATA
			SAKPAL NIKHIL SANTOSH NEETA
			SONAWALE PRATIK PRAFULL VIDYA
			VARE SAHIL ARUN SUREKHA
63	III & IV	Withworth Quick Return Motion Mechanism	NAIK SHUBHAM ARVIND SUSHILA
			SAWANT SHREYAS SHIVAJI SWAPNALI
			TAMORE VIDYESH DEEPAK MANISHA
			ZIRE SAGAR BALAJI KALPANA
64	III & IV	Elliptical Trammels	NAIK SARVESH VILAS ARCHANA
			PANDIT VINIT ARJUN BHAVANA
			PATIL DHAVAL RAJENDRA NAYANA
			SHARMA SHASHANK VINOD NUTAN
65	III & IV	Scotch Yoke Mechanism	PATIL VIVEK VISHNU SADHNA
			PAWAR SHREY SUNIL SHRUTI
			SHUKLA NITISH BHAWANI PRASAD SANGEETA
			SONAR TEJAS SANJAY ARCHANA





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Group No.	Semester	Title of the Project	Name of Student
66	III & IV	Peaucellier Mechanism	RAUL KRUTIK DILIP DIPALI
			SHAIKH MOHD AAMIR MOHD YUSUF SAMEENA K
			YADAV BRIJESH SEVALAL REETA
67	III & IV	Hart's Mechanism	PAIKADE DARSHAN RAJARAM RAJESHREE
			PANCHAL TANMAY CHANDRASHEKHAR SNEHA
			SANSARE AKSHAT DINESH DAKSHATA
68	III & IV	Grasshopper's Mechanism	SHIGWAN ADITYA MANOJ MONIKA
			PATIL PRABODH PRAMOD VAISHALI
			SHINGARE SAYYAM SANTOSH RINA
69	III & IV	Tchebicheff's Mechanism	TUKRAL MANISH MAHESH MAYURI
			PANCHAL SUMIT SUDHAKAR SUSHMITA
			NARAKE SHREYASH SHRIPAT VAISHALI
70	III & IV	Tchebicheff's Mechanism	PATERE SUMIT CHANDRAKANT JAYASHREE
			MURUDKAR AVINASH RAJU RAJESHRI
			PAL MOHIT KUMAR RAMRATAN SHYAMKALI
			PAL NEERAJ SUKHKHU LILAVATI
			PATIL SANDESH VIKAS ARUNA
			SHANWAR PRASHANT ARUN SUNITA
			YADAV ANURAG RAJESH ANKITA





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## Internship Details A.Y 2021-22

Sr. No.	Name of the student studied course on experiential learning through project work/field work/internship	Company Name
1	DEVENDRA DORKAR	Automotive Manufacturing Pvt Ltd
2	SIDDHESH NEMAN	Auto Expert Pvt Ltd
3	PRANESH PADVEKAR	Auto Expert Pvt Ltd
4	SAARTH PATIL	Sai Service Pvt Ltd
5	CHINAR PATIL	Dietech Engineers
6	RAJ NAIR	Angel Auto Wheels Pvt Ltd
7	SIDDHESH NEMAN	Vasai Pharma Products
8	DHRUV KAWLI	Preci-Moulds
9	NIMISH GHARAT	Preci-Moulds
10	ROHIT PATIL	Auto Expert Pvt Ltd
11	RAHUL PATIL	Auto Expert Pvt Ltd
12	SHILPA JAMBHALE	Ubiquitous Signs Pvt Ltd
13	MILIND KENI	Ubiquitous Signs Pvt Ltd
14	SAHIL KHEDEKAR	Ubiquitous Signs Pvt Ltd
15	BHAVESH KHATAL	Ubiquitous Signs Pvt Ltd
16	PRATIK VARTHE	Ubiquitous Signs Pvt Ltd
17	RAHUL KHARAT	Ubiquitous Signs Pvt Ltd
18	SHUBHAM DHUNDALE	Ubiquitous Signs Pvt Ltd
19	ROHIT PATIL	Vasai Pharma Products
20	RAHUL PATIL	Vasai Pharma Products
21	POOJA PATIL	Central Railway
22	ATHARVA VARTAK	Preci-Moulds
23	VIPUL PATIL	Enjos Learn & Build Pvt Ltd
24	NIHAR MHATRE	Enjos Learn & Build Pvt Ltd
25	VARUN SANKHE	Arati Drugs Ltd
26	AMIT PATIL	Sterling Rotating System Pvt Ltd
27	ANIKET SAWANT	Sterling Rotating System Pvt Ltd
28	VIPUL PATIL	Print Link
29	NIHAR MHATRE	Decibels Pvt Ltd
30	NABODH KUMAR	D-Honer Engineering Pvt Ltd
31	SHREYASH CHAVAN	Finulent Solutions Llp
32	NIRAJ MAHAMUNKAR	Accent Techno Solutions Pvt Ltd
33	SAURABH DESAI	Accent Techno Solutions Pvt Ltd





Vishnu Waman Thakur Charitable Trust's  
**VIVA Institute of Technology**

Approved By AICTE, New Delhi, DTE, Govt. of Maharashtra  
Affiliated to the University of Mumbai  
Shirgaon, Virar(E.), Dist: Palghar- 401305, Maharashtra

34	OMKAR CHAVAN	Accent Techno Solutions Pvt Ltd
35	NISHANT CHAVAN	Accent Techno Solutions Pvt Ltd
36	DEEPAK BHOSALE	Wasan Trucking Pvt Ltd
37	YASH JOGLE	Wasan Trucking Pvt Ltd
38	PANKAJ DEVALE	Wasan Trucking Pvt Ltd
39	OMKAR CHAVAN	Origin Corporate Services Pvt Ltd
40	SAURABH DESAI	Auto Controls
41	ROHAN KADAM	Western Railway
42	ABHIJIT KURADE	Western Railway
43	YASH JOGLE	Western Railway
44	MANISH GOTPAGAR	Western Railway
45	DIPAK BHOSALE	Western Railway
46	NITESH SUTAR	Western Railway
47	SMIT THAKUR	Renault Service Center
48	ANIL VARMA	Agarwal Industries
49	SATYAM SINGH	Trimurti Packaging
50	VEDANT THAKUR	Trimurti Packaging
51	VEDANT SHAH	Aquene Auto
52	OMKAR SAWANT	Aquene Auto
53	ATHARVA KULKARNI	Aquene Auto
54	SANDEEP RAHATE	Aquene Auto
55	DHRUV PATIL	Aquene Auto
56	AATIF HAJU	Techno Print
57	ONKAR HELONDE	Techno Print
58	SHRUTIKA JUVALE	Techno Print
59	SUJITH JOHN	Techno Print
60	DHRUV KAWLI	Sun Products
61	HRITIK RANE	Sawant Cooling Services
62	YASH PALANDE	Western Railway
63	SHUBHAM SHIRKE	Coach Care Center Bandra Terminus
64	NAWAZ SAYYED	Coach Care Center Bandra Terminus
65	MOHD SHAIKH	Coach Care Center Bandra Terminus
66	MANINDER SURME	Sai Service Maruti Suzuki
67	JAYESH RANJANKAR	Emu Carshed Virar
68	PRATHAMESH JANGAM	Emu Carshed Virar
69	CHIRAG PATEL	Shreem Automobiles
70	AMAN PANDEY	Western Railway
71	CHINAR PATIL	Ganesh Multitech Engineering Pvt Ltd





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Affiliated to the University of Mumbai

Shirgaon, Virar(E.), Dist: Palghar- 401305, Maharashtra

72	RUTIK TARAL	Platinum Motors
73	HRISHIKESH NIMBALKAR	Oriental Electrical Components Pvt.Ltd
74	SEON DIAS	Onefit Projects
75	GYANENDRA BOGATI	Subir Precision Pvt Limited
76	VIRAJ PENDURKAR	Sai Service Maruti Suzuki
77	ANAS SHAIKH	Pacific Tools Pvt Ltd.
78	SIDDESH MEHER	Pacific Tools Pvt Ltd.
79	ASHUTOSH PATIL	Royal Enfield
80	DINESH DHAVAL	Nuclear Power Corp Of India Ltd





# Vishnu Waman Thakur Charitable Trust's VIVA Institute of Technology

Approved By AICTE, New Delhi, DTE, Govt. of Maharashtra  
Affiliated to the University of Mumbai  
Shirgaon, Virar(E.), Dist: Palghar- 401305, Maharashtra

## Department of MCA Internship Details A.Y 2021-22

Sr.N o	NAMES OF STUDENTS	Internship Topic
1	ABDULLAH FARHANA AHMED	Matrimonial Application
2	ANSARI ABDULBAQUI ABDULRASHID	Solid Solidity(On-Chain Mechanical Keyboard Generator)
3	APRAJ VAIBHAV SANJAY	Compliance 360
4	ASHWIN SREEDHAR	Fleet Management System
5	BHAGAT SACHIN RAMSAKAL	Mypremises (Society Management)
6	BHOSURE ROSHANI HIRAMAN	Elevate Trips-Website (Travel Domain)
7	CHAKKALAKKAL SHELO PAULACHAN	Library Management System
8	CHAMARE JAY ANIL	Nanonets
9	CHAUDHARI JUHI RAJESH	Targeted Offers
10	CHAURASIYA SHIVAM SHAMBHUNATH	Real Cadence-Task Management System
11	DALVI RAHUL ANKUSH	Mobile Api (Gym App)
12	DANDEKAR HENIL KUNDAN	Fixed Asset Automation
13	DESAI ROHIT UTTAM	Storeinsta
14	DEVKAR DINESH DIPAK	Insurance Management
15	FUTAK UDAY DINESH	Virtual Expo (Web Application) Wtc
16	GADEKAR SWAPNIL SANJAY	Doctor Consent Auto Emailer
17	GAUTAM KOMAL PHOOLCHANDRA	Nanonets
18	GUPTA POOJA ASHOK	Employee Attendance Management System
19	GUPTA SHEETAL CHHOTELAL	Great Sales (B2b Mobile Application)
20	JAIN UNNATI GANESH	Multiple Action Page Project
21	JHA ROHIT MUKUND	Phyzii Pharma Crm
22	JOSHI JAHANVI DEEPAKKUMAR	Your Jewel's
23	KUDU ADITI DILIP	Phyzii Pharma Crm
24	MAHATO NAGENDRA PARMATMA	Fitness App
25	MARALE TEJAL SURESH	Online Banking
26	MESTRY RAHUL RAVINDRA	Prophish
27	MISHRA SONALI SUMAN	Task Management System
28	MORE KAUSHIK YATIN	Taskboard
29	MOURYA JILESH MUNNALAL	Gst Billing Software
30	NAIR ARUN MURALIDHARAN	Advance Digital Sinage
31	NALAWADE PRIYANKA SANDEEP	Go To Marketing
32	PANDEY MANISH SALIL	Inventory Issues
33	PANDEY SAURABH RAJENDRA	Focus





# Vishnu Waman Thakur Charitable Trust's VIVA Institute of Technology

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34	PATEL ADITYA SHREEPRAKASH	Real Time Market (Rtm)
35	PATIL AKSHAY PRABHAKAR	Jay Logistics (Transport Web Application)
36	PATIL SHEPHALI PRASANNA	Education Erp- Enroll Online
37	PATIL SMINAL KISHOR	Event Management-("Tafi.Nguage.Co.In" )
38	PAWAR PAYAL SANTOSH	Rbce Portal
39	PAWAR SANJOG PRAKASH	Urban Ledger
40	PEDNEKAR APURVA ANIL	Accounting Software (Alignbooks And Tallyprime)
41	PRAJAPATI CHETAN HIMMATLAL	"Oracle Flexcube Core Banking"
42	PRAJAPATI HARSHADA SHANTILAL	Manufacturing Comapny Based - Erp System
43	RAI RISHABH SATYENDRA	Real Cadence- Task Management System
44	RATHOD NEEL JAYESHBHAI	Ultratech Cement
45	RAUT OMKAR SUNIL	Standard 834 Reports (Manual Testing)
46	REDEKAR NAMRATA SAMBHAJI	Urban Ledger (Individual Project)
47	SANKHE HITASHRI DINESH	Phyzii Pharma Crm
48	SAWANT MANAS NITIN	Electronic Lab Notes Software
49	SHETH RIKITA MUKUL	Anzo Labs Website And Management
50	SHUKLA ARTI RAJKUMAR	Projive
51	TAMORE AKANKSHA VIDYADHAR	Project Cost Evaluator
52	TIWARI ASHISH AWADHESH	Real Estate Management
53	TIWARI HIMANSHU RAVINDRAKUMAR	Digital Signage
54	UPADHYAY ABHISHEK DAYASHANKAR	Eln Laboratory Softwareproject
55	VISHWAKARMA ARJUN RAMSHAKAL	Employee Attendance Management System
56	VISHWAKARMA PANKAJ MAHENDRA	Real Cadence-Task Management System
57	VISHWAKARMA SANDEEP R.	Go To Marketing
58	VISHWAKARMA SUNNY SHIVSAMPAT	Elevate Trips
59	YADAV KAMALESH DINESH	Job Board
60	YADAV PRIYANSHU SURYADEO	One Click Shopping





# Vishnu Waman Thakur Charitable Trust's VIVA Institute of Technology

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Affiliated to the University of Mumbai

Shirgaon, Virar(E.), Dist: Palghar- 401305, Maharashtra

## Department of MCA

### List of Mini Project for A.Y 2021-22

Group No.	Semester	Title of the Project	Name of Student
1	II	Jwellery Ecommerce Website	PRIYANKA GOUD
2	II	Gym Management System	PRADEEP KUMAR YADAV
	II		SANTOSH RAVINARAYAN PATRO
3	II	Plant Disease Detection	DANIEL SIVAPRASAD
	II		SHRUDHI BABU
4	II	Smart Contact Manager	MITESH SHARMA
	II		MANSINGH YADAV
5	II	Airplane Ticket Booking System	KARAN PATEL
6	II	Marksheet Generator	SANIYA SAVE
	II		NIKUNJ PUNDKAR
7	II	Legal Legends	ATHARVA YADAV
	II		SOHAM WAGHLEKAR
8	II	The Silver Screen Apk	ARUN PATEL
	II		SHIVAM MISHRA
9	II	Book Store App	SUFIYAN KHAN
	II		ONKAR SHELAR
10	II	Movie Ticket Booking Website	ARSHAD ANSARI
11	II	Chatting App: Modified(Educational Chatting App)	YADAV VISHAL
	II		ADITYA ANIL MALEKAR
12	II	Design And Implementation Of Covid-19 Directory On Vaccination System	GAURAV R. PATIL
	II		SIDDHI RAUT
13	II	Resume Builder	VIVEK PANDEY
	II		VISHAL SINGH
14	II	Quiz System	KHUSHBU PATEL
	II		SUPRIYA PAWAR
15	II		PRATIKSHA PAWAR





# Vishnu Waman Thakur Charitable Trust's VIVA Institute of Technology

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Shirgaon, Virar(E.), Dist: Palghar- 401305, Maharashtra

	II	Online Product Management System: Modified( Product Management System)	DEEPALI SHIVDE
16	II	Online Food Ordering System	KOMAL BHANUSHALI
	II		SUMIT BHATKAR
17	II	Image Stenography	SAYALI NACHARE
	II		RIYA SUVARNA
18	II	Movie Recommendation System	NEHA TIWARI
19	II	Pharmacy Management System	YASHASHREE KULKARNI
	II		GITESH LAD
20	II	Student Management System	RAHUL KEWAT
	II		NILANSHU MISHRA
21	II	Mobile Store Inventory Management System	PALLAVI PATIL
22	II	Online Bus Booking System: Women Safety	MAYUR BHATE
	II		VIRAJ PITALE
	II		SIDDHESH RANE
23	II	Contact Manager	SOHEL SHAIKH
24	II	Tourism System	RUSHABH PRAKASH PAWAR
	II		PRITESH KOTIAN
	II		RITH BELWALKAR
25	II	Trek Booking Application	RAHUL PALKAR
26	II	Movie Ticket Booking	PANKAJ TIWARI
27	II	Social Networking Site Ping Me	SAID MOMIN
	II		RUSHIKESH TATE
28	II	Property Listing Portal/Website	RUPENDRA KUMAR JANGID
	II		PRASANNA PATIL
29	II	Online Ticket Booking System	SHIVANI JALINDAR KAKADE
	II		NADAR ESTHER PRINCY ISRAEL
	II		RUSHIKESH THOMBARE





# Vishnu Waman Thakur Charitable Trust's VIVA Institute of Technology

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30	II	Qrcrypt (Desktop Application)	NIDHI RAMBALI TIWARI
31	II	Simple Parking Lot	PARAS VASAIKAR
	II		SAURABH
32	II	Sports Website	ADITYAKUMAR SINGH
	II		SONU GUPTA
	II		ANIRUDH VARTAK
33	II	Encode,Decode Converter	HEMANT KUSHWAHA
	II		RAHUL YADAV
	II		ABHISHEK YADAV





Vishnu Waman Thakur Charitable Trust's  
**VIVA Institute of Technology**

Approved By AICTE, New Delhi, DTE, Govt. of Maharashtra  
Affiliated to the University of Mumbai  
Shirgaon, Virar(E.), Dist: Palghar- 401305, Maharashtra

**Sample Documents of  
Students Project Work/  
Field Work/  
Internships  
For A.Y. 2021-22**

Sr. No.	Branch
1	Civil Engineering
2	Computer Engineering
3	Electrical Engineering
4	EXTC Engineering
5	Mechanical Engineering
6	MCA



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## WESTERN RAILWAY



पश्चिम रेलवे  
Western Railway

Office of CWM/PL  
Western Railway,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400 013

No: BTC/PL/2019/13

Date: 27/12/2021

To,  
The Principal,  
VIVA INSTITUTE OF TECHNOLOGY  
SHIRGOAN, VIRAR (E), PIN-401305

SUB: **Completion of In-plant Training Project**

Ref: CWM/PL's Office L NO. E1131/CW/1 Vol-IV Dt 11/12/2021

With reference to above, **Nitesh Arjun Sutar** your institute has successfully completed the In-plant Training in this workshop **from** 13/12/2021 to 27/12/2021. The topics covered in training are:-

1. Air brake system of Railway Coaches.
2. Bogie components - its function and repair work.
3. Maintenance practice of LHB FIAT Bogie.
4. Wheel, Axle - Process of assembly and failure analysis.
5. Precision measuring instruments used in workshop for different mechanical operations and assembly work.
6. Bearing Assembly & dismantling process, Bearing failure study.
7. Shock absorber and springs.
8. Coach body corrosion repair.
9. Painting procedure of railway coaches.
10. Furnishing of AC & Non AC coaches.
11. ISO concept and IMS

He has submitted Technical Internship Program Report on the 'Industrial Training at Carriage Repair Workshop' at this workshop.

With Best Wishes,

*Sutar*  
27-12-21  
आपक कारिजरी प्रणाली (म)  
Assst. Workshop  
सवारी डिप्टी मालिक  
Carriage Repair Workshop  
लोअर पारेल, मुंबई - 400 013

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## WESTERN RAILWAY



पश्चिम रेलवे  
Western Railway

Office of CWM/PL,  
Western Railway,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400 013

No: BTC/PL/2019/13

Date: 27/12/2021

To,  
The Principal,  
VIVA INSTITUTE OF TECHNOLOGY  
SHIRGOAN, VIRAR (E), PIN-401305

SUB: **Completion of In-plant Training Project**

Ref: CWM/PL's Office L NO. E1131/CW/1 Vol-IV Dt. 11/12/2021

With reference to above, Dipak Ashwathama Bhosale your institute has successfully completed the In-plant Training in this workshop from 13/12/2021 to 27/12/2021. The topics covered in training are:-

1. Air brake system of Railway Coaches.
2. Bogie components - its function and repair work.
3. Maintenance practice of LHB FIAT Bogie.
4. Wheel, Axle - Process of assembly and failure analysis.
5. Precision measuring instruments used in workshop for different mechanical operations and assembly work.
6. Bearing Assembly & dismantling process, Bearing failure study.
7. Shock absorber and springs.
8. Coach body corrosion repair.
9. Painting procedure of railway coaches.
10. Furnishing of AC & Non AC coaches.
11. ISO concept and IMS

He has submitted Technical Internship Program Report on the 'Industrial Training at Carriage Repair Workshop' at this workshop.

With Best Wishes,

*(Signature)*  
27-12-21  
अभिषेक शिंदे, असिस्टेंट प्रोव्हिडेंट (म)  
Asstt. Wagonmaster, कार्रिज रिपेयर वर्कशॉप (म)  
अभिषेक शिंदे, असिस्टेंट प्रोव्हिडेंट (म)  
Carriage Repair Workshop (म) वाय  
लोअर पारेल, मुंबई - 400 013

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## WESTERN RAILWAY



पश्चिम रेलवे  
Western Railway

Office of CWM/PL  
Western Railway,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400 013

No: BTC/PL/2019/13

Date: 27/12/2021

To,  
The Principal,  
VIVA INSTITUTE OF TECHNOLOGY  
SHIRGOAN, VIRAR (E), PIN-401305.

SUB: **Completion of In-plant Training Project**

Ref: CWM/PL's Office L. NO. E1131/CW/1 Vol-IV Dt 11/12/2021

With reference to above, Manish Gautam Gotpagar of your institute has successfully completed the In-plant Training in this workshop from 13/12/2021 to 27/12/2021. The topics covered in training are:-

1. Air brake system of Railway Coaches.
2. Bogie components - its function and repair work.
3. Maintenance practice of LHB FIAT Bogie.
4. Wheel, Axle - Process of assembly and failure analysis.
5. Precision measuring instruments used in workshop for different mechanical operations and assembly work.
6. Bearing Assembly & dismantling process, Bearing failure study.
7. Shock absorber and springs.
8. Coach body corrosion repair.
9. Painting procedure of railway coaches.
10. Furnishing of AC & Non AC coaches.
11. ISO concept and IMS

He has submitted Technical Internship Program Report on the 'Industrial Training at Carriage Repair Workshop' at this workshop.

With Best Wishes,

*(Signature)*  
23.12.21  
AWM(RY)/PL  
Asstt. Workshop Manager (R)  
Carriage Repair Workshop, N M Joshi Marg, Lower Parel, Mumbai - 400 013

## WESTERN RAILWAY



पश्चिमी रेलवे  
Western Railway

Office of CWM/PL  
Western Railway,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400 013

No: BTC/PL/2019/13

Date: 27/12/2021

To,  
The Principal,  
VIVA INSTITUTE OF TECHNOLOGY  
SHIRGOAN, VIRAR (E), PIN-401305

SUB: **Completion of In-plant Training Project**

Ref: CWM/PL's Office L NO. E1131/CW/1 Vol-IV Dt. 11/12/2021

With reference to above, **Yash Anil Jogale** your institute has successfully completed the In-plant Training in this workshop from 13/12/2021 to 27/12/2021. The topics covered in training are:-

1. Air brake system of Railway Coaches.
2. Bogie components - its function and repair work.
3. Maintenance practice of LHB FIAT Bogie.
4. Wheel, Axle - Process of assembly and failure analysis.
5. Precision measuring instruments used in workshop for different mechanical operations and assembly work.
6. Bearing Assembly & dismantling process, Bearing failure study.
7. Shock absorber and springs.
8. Coach body corrosion repair.
9. Painting procedure of railway coaches.
10. Furnishing of AC & Non AC coaches.
11. ISO concept and IMS

He has submitted Technical Internship Program Report on the 'Industrial Training at Carriage Repair Workshop' at this workshop.

With Best Wishes,

*(Signature)*  
27.12.21  
आसि. कार्यशाळा व्यवस्थापक (स)  
Asstt. Workshop Manager (S)  
खुशरी दिवाळ कारखाना (स)  
Carriage Repair Workshop (S)  
लोवर पारेल, मुंबई - 400 013  
Lower Parel, Mumbai - 400 013

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## WESTERN RAILWAY



पश्चिम रेलवे  
Western Railway

Office of CWM/PL  
Western Railway,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400 013

No: BTC/PL/2019/13

Date: 27/12/2021

To,  
The Principal,  
VIVA INSTITUTE OF TECHNOLOGY  
SHIRGOAN, VIRAR (E), PIN-401305

SUB: **Completion of In-plant Training Project**

Ref: CWM/PL's Office L NO. E1131/CW/1 Vol-IV Dt. 11/12/2021

With reference to above, Abhijit Ganapati Kurade your institute has successfully completed the In-plant Training in this workshop from 13/12/2021 to 27/12/2021.

The topics covered in training are:-

1. Air brake system of Railway Coaches.
2. Bogie components - its function and repair work.
3. Maintenance practice of LHB FIAT Bogie.
4. Wheel, Axle - Process of assembly and failure analysis.
5. Precision measuring instruments used in workshop for different mechanical operations and assembly work.
6. Bearing Assembly & dismantling process, Bearing failure study.
7. Shock absorber and springs.
8. Coach body corrosion repair.
9. Painting procedure of railway coaches.
10. Furnishing of AC & Non AC coaches.
11. ISO concept and IMS

He has submitted Technical Internship Program Report on the 'Industrial Training at Carriage Repair Workshop' at this workshop.

With Best Wishes,

*(Signature)*  
22.12.21  
AWM(R)/PL  
Asstt. Workshop Manager (R)  
Carriage Repair Workshop  
N M Joshi Marg, Lower Parel  
Mumbai - 400 013

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## WESTERN RAILWAY



पश्चिम रेलवे  
Western Railway

Office of CWM/PL,  
Western Railway,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400 013

No: BTC/PL/2019/13

Date: 27/12/2021

To,  
The Principal,  
VIVA INSTITUTE OF TECHNOLOGY  
SHIRGOAN, VIRAR (E), PIN-401305

SUB: **Completion of In-plant Training Project**

Ref: CWM/PL's Office L. NO. E1131/CW/1 Vol-IV Dt. 11/12/2021

With reference to above, Rohan Pravin Kadam your institute has successfully completed the In-plant Training in this workshop from 13/12/2021 to 27/12/2021.

The topics covered in training are:-

1. Air brake system of Railway Coaches.
2. Bogie components - its function and repair work.
3. Maintenance practice of LHB FIAT Bogie.
4. Wheel, Axle - Process of assembly and failure analysis.
5. Precision measuring instruments used in workshop for different mechanical operations and assembly work.
6. Bearing Assembly & dismantling process, Bearing failure study.
7. Shock absorber and springs.
8. Coach body corrosion repair.
9. Painting procedure of railway coaches.
10. Furnishing of AC & Non AC coaches.
11. ISO concept and IMS

He has submitted Technical Internship Program Report on the 'Industrial Training at Carriage Repair Workshop' at this workshop.

With Best Wishes,

*Signature*  
27.12.21  
AWM(R)/PL



**AUTO CONTROLS**

OFFICE : 20/10 E, Sethi Ind. Estate, Suren Road, Andheri (E), Mumbai - 400 093, India. Tel.: 022-2683 0836 Fax : 022-2683 1090

OUR REF. :

DATE :

12.01.2022

**TO WHOM SO EVER IT MAY CONCERN**

This is to Certify that **MR. SAURABH N. DESAI** student of Mechanical Engineer of **VIVA COLLEGE OF ENGINEERING Virar [E]**, has successfully completed his internship from **28 December 2021 to 11<sup>th</sup> January 2022**.

During the internship period he is honest and sincere in his work. His performance was satisfactory and bears a good moral character. He was found punctual, hard working.

We wish him all the success for his future career.

FOR AUTO CONTROLS

  
MR. TANAY THAKAR

FACTORY : Plot No. K/4, Harkesh Udyog Nagar, Mira Bhayander Road, Behind Indo Fab. Ind., Mira Road (E), Dist. Thane - 401 107.  
Tel.: 022-28124877 / 022-28104877 Mobile : +91-8291919374 / +91-8291919375

**PEOPLE FOR INDUCTION SYSTEMS**

Date - 10<sup>th</sup> January 2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Omkar Arjun Chavan**, is student of Mechanical Engineer of VIVA INSTITUTE OF TECHNOLOGY, Virar (E), has successfully completed his internship from 27<sup>th</sup> December 2021 to 8<sup>th</sup> January 2022.

During period of internship he was found to be honest and sincere and his performance was satisfactory and he was found punctual and hard working.

We wish him all the best for his future career.

For origin corporate service Pvt. Ltd.

  
Ashish Adhavi  
Sr. Engineer

origin corporate services pvt. ltd.

906, dalamal tower, nariman point, Mumbai - 400 021

+91 22 49 267 267. response@origincorp.com, www.origincorp.com

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We wish him all the best for his future.

For, Wasan Trucking Pvt. LTD



Authorized Signatory

**Wasan Trucking**

Wasan Trucking Private Limited  
(BharatBenz Authorized Dealer)  
Wasan House: 4, Swastik Park, Sion Trombay Road,  
Chembur, Mumbai 400071, Maharashtra.  
Phone: +91 22 6583 4044  
Email: sales.chembur@wasantrucking.com

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**TO WHOM SO EVER IT MAY CONCERN**

This is to inform you that Mr. **Deepak Ashwathama Bhosale** has been working in our organization from **28 June 2021 to 28 July 2021**. During his tenure we found him to be very sincere, hardworking and productivity.

This letter is being issued on his request he is leaving this organization for better prospects.

We wish him all the best for his future.

Thanks Regards

For, Wasan Trucking Pvt. LTD



Authorized Signatory

## INTERNSHIP CERTIFICATE

Ref. No: ATS/INTERN/01/2022/108

31<sup>st</sup> January 2022

This is to certify that **Mr. Nishant Ramesh Chavan** (ATS ID No ATS/INTERN-1.0/220806), BE Mechanical, Semester VIII, Student of college **Viva College of Engineering & Technology, Virar**, has participated in internship program which was organized by an EPC company **M/s. Accent Techno Solutions Pvt. Ltd., Mumbai**, involved in Engineering Design of various Projects.

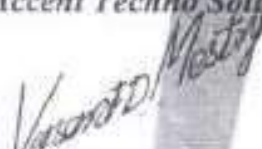
Purpose of the Internship to create awareness in Engineering students about the Oil & Gas Sector including Upstream, Midstream and Downstream systems along with various equipment used in various units, their piping requirement, pipe supports, pipe rack and plot plan using E3D software.

This Plant Engineering Internship program was scheduled from 3<sup>rd</sup> January to 25<sup>th</sup> January 2022, to enhance working skills of plant operating, maintenance for working in oilfield, various chemical processing plants and to plan career graph with higher studies.

It is observed that all the given case studies were submitted on time and attended internship with utter respect to the project activities which shows honesty and hardworking.

Team of Accent Techno Solutions Pvt. Ltd. wishes to have a most bright future.

For Accent Techno Solutions Pvt. Ltd.

  
Vasant Dinkar Mestry  
Managing Director

## INTERNSHIP CERTIFICATE

Ref. No: ATS/INTERN/01/2022/109

31<sup>st</sup> January 2022

*This is to certify that Mr. Omkar Arjun Chavan (ATS ID No ATS/INTERN-1.0/220842), BE Mechanical, Semester VIII, Student of college Viva College of Engineering & Technology, Virar, has participated in internship program which was organized by an EPC company M/s. Accent Techno Solutions Pvt. Ltd., Mumbai. involved in Engineering Design of various Projects.*

*Purpose of the Internship to create awareness in Engineering students about the Oil & Gas Sector including Upstream, Midstream and Downstream systems along with various equipment used in various units, their piping requirement, pipe supports, pipe rack and plot plan using E3D software.*

*This Plant Engineering Internship program was scheduled from 3<sup>rd</sup> January to 25<sup>th</sup> January 2022, to enhance working skills of plant operating, maintenance for working in oilfield, various chemical processing plants and to plan career graph with higher studies.*

*It is observed that all the given case studies were submitted on time and attended internship with utter respect to the project activities which shows honesty and hardworking.*

*Team of Accent Techno Solutions Pvt. Ltd. wishes to have a most bright future.*

*For Accent Techno Solutions Pvt. Ltd.*

  
Vasant Dinkar Mestry  
Managing Director

## INTERNSHIP CERTIFICATE

Ref. No: ATS/INTERN/01/2022/099

31<sup>st</sup> January 2022

*This is to certify that Mr. Saurabh Namdev Desai (ATS ID No ATS/INTERN-1.0/220850), BE Mechanical, Semester VIII, Student of college Viva College of Engineering & Technology, Virar, has participated in internship program which was organized by an EPC company M/s. Accent Techno Solutions Pvt. Ltd., Mumbai, involved in Engineering Design of various Projects.*

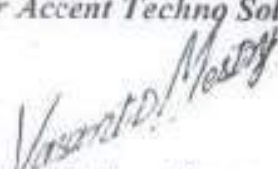
*Purpose of the Internship to create awareness in Engineering students about the Oil & Gas Sector including Upstream, Midstream and Downstream systems along with various equipment used in various units, their piping requirement, pipe supports, pipe rack and plot plan using E3D software.*

*This Plant Engineering Internship program was scheduled from 3<sup>rd</sup> January to 25<sup>th</sup> January 2022, to enhance working skills of plant operating, maintenance for working in offfield, various chemical processing plants and to plan career graph with higher studies.*

*It is observed that all the given case studies were submitted on time and attended internship with utter respect to the project activities which shows honesty and hardworking.*

*Team of Accent Techno Solutions Pvt. Ltd. wishes to have a most bright future.*

*For Accent Techno Solutions Pvt. Ltd.*

  
Vasant Dinkar Mestry  
Managing Director

## INTERNSHIP CERTIFICATE

Ref. No:ATS/INTERN/01/2022/107

31<sup>st</sup> January 2022

This is to certify that **Mr. Neeraj Vijay Mahamunkar** (ATS ID No ATS/INTERN-1.0/220811), BE Mechanical, Semester VIII, Student of college **Viva College of Engineering & Technology, Virar**, has participated in internship program which was organized by an EPC company **M/s. Accent Techno Solutions Pvt. Ltd., Mumbai**, involved in Engineering Design of various Projects.

Purpose of the Internship to create awareness in Engineering students about the Oil & Gas Sector including Upstream, Midstream and Downstream systems along with various equipment used in various units, their piping requirement, pipe supports, pipe rack and plot plan using E3D software.

This **Plant Engineering** Internship program was scheduled from 3<sup>rd</sup> January to 25<sup>th</sup> January 2022, to enhance working skills of plant operating, maintenance for working in oilfield, various chemical processing plants and to plan career graph with higher studies.

It is observed that all the given case studies were submitted on time and attended internship with utter respect to the project activities which shows honesty and hardworking.

Team of Accent Techno Solutions Pvt. Ltd. wishes to have a most bright future.

For Accent Techno Solutions Pvt. Ltd.



Vasant Dinkar Mestry  
Managing Director

31



Link Road, Malad West

216 Linkway Industrial Estate

**FINULENT SOLUTIONS** Mumbai 400064

India

Private and Confidential

27<sup>th</sup> February, 2022

Mr. Shreyas Chavan  
India

Dear Shreyas,

### INTERNSHIP EXPERIENCE LETTER

This letter is to certify that **Mr. Shreyas Chavan** has successfully completed his 7 - month's internship program with FINULENT SOLUTIONS LLP. His internship tenure was from 02<sup>nd</sup> August, 2021 to 26<sup>th</sup> February, 2022.

He was working with Designing department and was actively involved in the projects and tasks assigned to him.

He displayed professional traits during his internship and managed to complete all assigned tasks as requested. He was sincere, diligent and committed.

We wish him a bright future.

Yours faithfully,

For Finulent Solutions LLP,

*Abhandari*

Ankita Bhandari



30

## Experience Certificate

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

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Nabhod Malesh Kumare** was working as a Intern with D-Honer Engineers (India) Pvt. Ltd., from **06<sup>th</sup> December 2021 to 12<sup>th</sup> January 2022** in workshop on Honing Machine project.

During this tenure, we found Nabhod Kumare to be a professional, knowledgeable and result oriented with theoretical and practical understanding of work requirements.

Overall, Nabhod Kumare performed his duties and responsibilities cheerfully with attention to detail at all times.

We at D-Honer Engineers wish him all success in his future endeavours.

Warm regards,

**D-HONER ENGINEERS (INDIA) PVT. LTD.**



Kiran Saye  
Managing Director

**D-Honer Engineers (India) Pvt. Ltd.**

Reg. Office: Vaikunth Nagar, F-302, Tulay Road  
Nallasopara (East), Dist. Thane - 401 209  
Cell : + 91 9890686586

Works: Shah & Desai Industrial Estate No. 2, Unit No. 2, Navghar  
Vasai (East), Dist. Thane, Pin : 401 210, Maharashtra, India.  
Tel : 0250 3256707, Fax : 0250 2392519

E-mail : dhoner@city.com - dhoner@vsnl.net  
Website: www.dhoner.com - www.dhoner.net



Decibels Lab Private Limited  
#2362, 24th main road  
1<sup>st</sup> sector, HSR layout  
Bangalore, Karnataka, 560103

CIN: U80904KA2019PTC126673  
+91 7411019255  
[contact@decibelslab.com](mailto:contact@decibelslab.com)

Date	28 August 2021
Certificate ID	cyl4khoc0
Issued by	Sushmitha S D

### INTERNSHIP COMPLETION CERTIFICATE

This is to certify that **Nihar Mhatre** has been undergone the internship program in **Python Mechanical** Department at Decibels Lab Pvt Ltd, from 01<sup>st</sup> August 2021 to 27<sup>th</sup> August 2021.

During the above tenure, **Nihar Mhatre** was trained and assigned projects on

1. Kinematic system design of quadruped robots
2. Study of performance of Supercharger using Python
3. Analysis of Fluid flow over an Airfoil.

We wish you best of luck for the future endeavours.

For Decibels Lab Pvt Ltd

Sushmitha S D  
Senior HR Partner



# PRINT LINK

MANUFACTURERS OF:

PAD, PRINTING, SCREEN PRINTING & STRETCH BLOW FORMING MACHINE & BLOW MOULDS

Office & Factory : Unit No. 201, Mahesh Industrial Estate, Near Vijay Sales, Mira Bhayander Road, Mira Road (E), District Thane: 401 107. Maharashtra. India.

Mob: 9987563583

Email: printlink323@gmail.com

Date: 20<sup>th</sup> July, 2022

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Vipul Vilas Patil has successfully completed his internship programme which was from 16<sup>th</sup> July, 2021 to 19<sup>th</sup> July, 2022. He was working in Design and Development department as "Design and CNC Programming Intern".

While working with us we found him extremely inquisitive and hardworking. He was very much interested to learn the functions of CNC Lathe and CNC milling machine and also willing to put his best efforts and get deep into the subject to understand it better.

During his tenure, he has shown great dedication & punctuality and we wish him a bright future.

PRINT LINK

  
\* Mr. Ravi Jain

Founder & CEO



**STERLING**  
Rotating Systems Pvt Ltd

APR 03 2001 2015 COMPANY

Unit No 103, New Mahaveer Industrial Estate, Survey No 88, Main Road, Wadi,  
Vasai-East, Dist - Palghar, Maharashtra-401 210, INDIA  
E-mail: info@sterlingrotating.com, Cell: 91-9892722560

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr. Amit Vasant Pail, a Student of B.E. in Mechanical Engineering - 4th Year from VTVA Institute of Technology, Virar, has successfully completed his In-Plant Training with project in Quality department at Sterling Rotating Systems Private Limited - Vasai

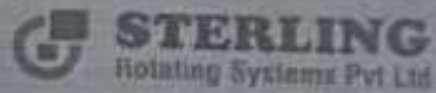
The duration of the project was from 20 December, 2021 to 20 January 2022. During the tenure of project period we have found him sincere & hardworking.

We wish him best of luck for his future endeavor.

For STERLING ROTATING SYSTEMS PVT LTD,

  
Jay Chitr





AN ISO 9001: 2015 COMPANY

Unit No 103, New Mahadevi Industrial Estate, Survey No 56, Nalk Pada, Vashi,  
Vasai-East, Dist - Palghar, Maharashtra-401 210, INDIA  
E-mail: info@sterlingrotating.com, Call : 91-992722960

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Aniket Ankanth Sawant, a Student of B.E. in Mechanical Engineering - 4th Year from VIVA Institute of Technology, Virar, has successfully completed his In-Plant Training with project in Quality department at Sterling Rotating Systems Private Limited - Vasai

The duration of the project was from 30 December, 2021 to 20 January 2022. During the tenure of project period we have found him sincere & hardworking.

We wish him best of luck for his future endeavor.

For STERLING ROTATING SYSTEMS PVT LTD.

A handwritten signature in dark ink, appearing to read 'Jay Churi'.

Jay Churi





# Aarti Drugs Limited

Manufacturers of : Bulk Drugs & Chemicals

25  
Factory : Plot No. G-60, M.T.D.C., Tarapur  
Kolwade Village, Tal. & Dist. Raigarh,  
State Maharashtra, Pin - 401 506  
Mob.: 9970052099 / 7709739293  
E-mail : adlg60@aartidrugs.com  
Website : www.aartidrugs.com

23.12.2021

## CERTIFICATE OF INPLANT TRAINING

This is to certify that **Mr. Varun Rajendra Sankhe** of **Viva Institute of Technology, At.(Virar)**, fourth year degree course in **B.E.Mechanical** attended training from **09.12.2021 to 23.12.2021** as a **In Plant Trainee(Vacational Training)** in **Maint. Dept.** In our Organization.

During his tenure we found him hard working and diligent in his performance.

He will be an asset to any organization, we wish him all success in future life.

For AARTI DRUGS LTD,

(MAHESH B. PATIL)  
AUTHORISED SIGNATORY (HR & ADMN)



Date :- 5th Aug, 2021

**INTERNSHIP COMPLETION CERTIFICATE**

This is to certify that Mr. Nihar Mhatre has successfully Completed internship program in Automotive Design Department at enjos learn and build Pvt Ltd, from 20th May 2021 to 31st July 2021.

During the above tenure, Nihar Mhatre was trained and worked on Automotive Sheet Metal Designing, Class A Surfacing, GD & T and Drafting sheets.

He majorly worked on projects like Arm Rest design and Door Panel Design.

We found him extremely inquisitive and hardworking. He was very much interested to learn the functions of our design department and also willing to put his best effort to get deep into it and completed the projects efficiently.



Regards,

HR Manager

Enjos learn and build Pvt. Ltd.



Date :- 18th July, 2021

**INTERNSHIP COMPLETION CERTIFICATE**

This is to certify that Mr. Vipul Patil has successfully completed internship program in Product Design Department at enjos learn and build Pvt Ltd, from 8th February 2021 to 11 July 2021.

During the above tenure, Vipul Patil was trained and worked on Industrial Sheet Metal Designing, Created drawing sheets for production and manufacturing.

He majorly worked on projects like Centrifugal Pump, Robotic Arm.

We found him extremely inquisitive and hardworking. He was very much interested to learn the functions of our design department and also willing to put his best effort to get deep into it and completed the projects efficiently.



Regards,

HR Manager

Enjos learn and build Pvt. Ltd.



+91-704278442158547



enjosforengineers@gmail.com



S/F 27, Shreshtha Vihar, Shahdara,  
DELHI, North East, India, 110002

 **PRECI-MOULDS**

UNIT NO - 20 , OBEROI IND.ESTATE  
CHINCHPADA WALIV VASAI ( EAST ) PIN - 401208  
EMAIL - PRECI MOULDS@GMAIL.COM

---

Date :

TO WHOM IT MAY CONCERN

This is to certify that Mr. Atharva Sanjyot Vartak, a student of BE (Mechanical Engineering- Fourth Year), Viva Institute Of Technology, Virar has successfully completed 01 (One) month (From 6<sup>th</sup> December, 2021 to 05<sup>th</sup> January, 2022) long internship programme at this Company. During the period of his internship programme with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For, Preci-Moulds.



---

Sunil D'Souza



दुनियादी प्रशिक्षण केंद्र (यांत्रिक)  
BASIC TRAINING CENTER (MECH.)

सवारी डिब्बा कारखाना

CARRIAGE WORKSHOP

मध्य रेल, माटुंगा, मुंबई - 400 019.

CENTRAL RAILWAY, MATUNGA, MUMBAI - 400 019.

(एकीकृत प्रबंधन प्रणाली प्रमाणित : ISO 9001:2001; 18001:2007, OHSAS: 18001, MS - 2015)

प्रमाणपत्र  
CERTIFICATE

This is to certify that Shri/Smt./Ms. Pooja Rajendra Patil,

प्राप्त किया जाता है कि श्री/श्रीमती/कुमारी

student of VIVA Institute Of Technology, VIVA Technical Campus At Post Shirgaon, Virar (East) Dist. Palghar, के विद्यार्थी ने

has completed Internship/Inplant Training successfully in Carriage Workshop, Central Railway, Matunga, Mumbai - 400 019 in the period

from 03-08-2021 to 04-09-2021

सवारी डिब्बा कारखाना, मध्य रेल, माटुंगा, मुंबई-400 019 से अपनी इच्छापूर्वक श्रमदान के लिए निर्वास

किया

से तक सफलतापूर्वक पूर्ण



प्रमाणित

मुख्य प्रशिक्षक

Chief Instructor

(प्रशिक्षण अधिकारी)

विविध प्रशिक्षण केंद्र, माटुंगा

सुपरी/सुपरी केंद्र (यांत्रिक)

Basic Training Center (Mech.)

एच. रेल, माटुंगा, मुंबई

Carriage Workshop, Matunga

महेश ए. देगांवकर

(Mahesh A. Degankar)

मुख्य प्रशिक्षक, सुपरी

APC, Shirgaon, Palghar/MTN

सुपरी कारखाना

For Chief Workshop Manager, Matunga

# VASAI PHARMA PRODUCTS

Factory:-18 Vishal Industrial Estate, Near Onida Company, Navghar, Vasai Road(East) Dist-Palghar,  
Pincode - 401208

Date : 16-7-21

## INTERNSHIP CERTIFICATE

This is to certify that Mr. Rahul bhagwan patil BE in Mechanical engineering from 6<sup>th</sup> semester 3<sup>rd</sup> year Student of VIVA INSTITUTE OF TECHNOLOGY, Virar E. has completed his internship in our organisation M/s.VASAI PHARMA PRODUCTS from 15<sup>th</sup> june 2021 to 15<sup>th</sup> july 2021.

We found him very hardworking and sincere during this training period.

We wish him every success in life.

Thanking you

FOR VASAI PHARMA PRODUCTS

VASAI PHARMA PRODUCTS  
Factory:- Dwar A, Shah 3  
No. 7, Navghar, Vasai (E)  
Dist. Palghar, Maharashtra 401208

# VASAI PHARMA PRODUCTS

Factory-18 Vishal Industrial Estate, Near Onida Company, Navghar, Vasai Road(East) Dist-Palghar,  
Pincode - 401208

Date : 16-7-21

## INTERNSHIP CERTIFICATE

This is to certify that Mr.Rohit hari patil BE in Mechanial engineering from 6<sup>th</sup> semester 3<sup>rd</sup> year Student of VIVA INSTITUTE OF TECHNOLOGY, Virar E has completed his internship in our organisation M/s.VASAI PHARMA PRODUCTS from 15<sup>th</sup> june 2021 to 15<sup>th</sup> july 2021.

We found him very hardworking and sincere during this training period.

We wish him every success in life.

Thanking you

FOR VASAI PHARMA PRODUCTS

VASAI PHARMA PRODUCTS  
Factory-18 Vishal Industrial Estate, Near Onida Company, Navghar, Vasai Road(East) Dist-Palghar,  
Pincode - 401208

Office-201,DinanathSmruti, K.T. road, Gurunanak Nagar, Vasai-west, 401201

Tel: 9594997553 Email: vasaipp1116@gmail.com

TO WHOM IT MAY CONCERN

This is to certify that **Mr./Ms. Shubham Suresh Dhundale**, student of VIVA Institute of Technology, Virar (E), has successfully completed an internship (Ref.: VIVA/VIT/905/20 21- 22, Dt. 20-12-2021) in the field of Mechanical From 27<sup>th</sup> Dec 2021 to 04<sup>th</sup> Jan 2022 Under guidance of Shrikant Bhelekar - Production Manager.

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

We wish ~~her~~ / him every success in ~~her~~ / his life and career.

For Ubiquitous Signs Pvt.Ltd.

  
Sanjali Sankhe

Sr.Exec. - HRD & Admin

05/01/2022

TO WHOM IT MAY CONCERN

This is to certify that Mr/Ms. Rahul Sakudev Kharat, student of VIVA Institute of Technology, Virar (E), has successfully completed an internship (Ref: VIVA/VIT/905/20 21-22, Dt. 20-12-2021) in the field of Mechanical From 27<sup>th</sup> Dec 2021 to 04<sup>th</sup> Jan, 2021 Under guidance of Shrikant Bhelekar - Production Manager.

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

We wish her / him every success in her / his life and career.

For Ubiquitous Signs Pvt.Ltd.



Sanjali Sanke

Sr.Exec. - HRD & Admin

05/01/2021

TO WHOM IT MAY CONCERN

This is to certify that **Mr./Ms. Pratik Anil Varthe**, student of VIVA Institute of Technology, Virar (E), has successfully completed an internship (Ref.: VIVA/VIT/905/20 21- 22. Dt. 20-12-2021) in the field of Mechanical From 27<sup>th</sup> Dec 2021 to 04<sup>th</sup> Jan 2021 Under guidance of Shrikant Bhelekar - Production Manager.

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

We wish ~~her~~ / him every success in ~~her~~ / his life and career.

For Ubiquitous Signs Pvt.Ltd.



Sanjali Sankhe

Sr.Exec. - HRD & Admin

05/01/2021

TO WHOM IT MAY CONCERN

This is to certify that **Mr./Ms. Bhavesh Kishor Khatal**, student of VIVA Institute of Technology, Virar (E), has successfully completed an internship (Ref.: VIVA/VIT/905/20 21- 22, Dt. 20-12-2021) in the field of Mechanical From 27<sup>th</sup> Dec 2021 to 04<sup>th</sup> Jan 2021 Under guidance of Shrikant Bhelekar - Production Manager.

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

We wish ~~her~~ / him every success in ~~her~~ / his life and career.

For Ubiquitous Signs Pvt.Ltd.


Sanjali Sankhe

Sr.Exec. - HRD & Admin

05/01/2021

TO WHOM IT MAY CONCERN

This is to certify that Mr./Ms. Sahil Sunil Khedekar, student of VIVA Institute of Technology, Virar (E), has successfully completed an internship (Ref.: VIVA/VIT/905/20 21- 22, Dt. 20-12-2021) in the field of Mechanical From 27<sup>th</sup> Dec 2021 to 04<sup>th</sup> Jan 2021 Under guidance of Shrikant Bhelekar - Production Manager.

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

We wish ~~her~~ / him every success in ~~her~~ / his life and career.

For Ubiquitous Signs Pvt.Ltd.



Sanjali Sankhe

Sr.Exec. - HRD & Admin

05/01/2021

TO WHOM IT MAY CONCERN

This is to certify that **Mr./Ms. Milind Govind Keni**, student of VIVA Institute of Technology, Virar (E), has successfully completed an internship (Ref: VIVA/VIT/905/20 21- 22, Dt. 20-12-2021) in the field of Mechanical From 27<sup>th</sup> Dec 2021 to 04<sup>th</sup> Jan 2021 Under guidance of **Shrikant Bhelekar - Production Manager**.

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

We wish ~~her~~ / him every success in ~~her~~ / his life and career.

For Ubiquitous Signs Pvt.Ltd.

  
Sanjali Sankhe

Sr.Exec. - HRD & Admin

05/01/2021

TO WHOM IT MAY CONCERN

This is to certify that **Mr./Ms. Shilpa Shantaram Jambhale**, student of VIVA Institute of Technology, Virar (E), has successfully completed an internship (Ref.: VIVA/VIT/905/20 21- 22, Dt. 20-12-2021) in the field of Mechanical From 27<sup>th</sup> Dec 2021 to 04<sup>th</sup> Jan 2021 Under guidance of Shrikant Bhelekar – Production Manager.

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

We wish her / ~~him~~ every success in her / ~~his~~ life and career.

For Ubiquitous Signs Pvt.Ltd.

  
  
 Sanjali Sankhe

Sr.Exec. - HRD & Admin

05/01/2021

2021-22

Date: 20/12/2021

To,  
The Principal,  
VIVA Institute of Technology,  
Shirgaon, Virar (E).

*Pratishtha*  
*20.12.21*

Through HOD

**Subject : Regarding Internship.**

Respected Sir,

Kindly grant permission for internship from 20/12/2021 to 03/01/2022

Details are as under.

**Address of Company:** Mr. Sanjay Sambrage Sonthe (9082848421)

Neelima compound, Survey No. 52,  
Opp. Navjivan bus stop,  
Mandoli School, Leale Road,  
Village - Wadi, Vasai (E) Dist - Palghar  
**Students details:** pin - 401208

Sr. No.	Name	Mob. No.	Branch	Semester
1	Shilpa Shamdarra Jambhate	8452011761	mechanical	VII
2	Manind Govind Kani	8651645516	mechanical	VII
3	Sahil Sunil Khedekar	8767416836	mechanical	VII
4	Bhavesb Kishor Kheda	7057626661	mechanical	VII
5	Pratik Anil Vinithe	9929235753	mechanical	VII
6	Rahul Surinder Kharat	8668416957	mechanical	VII
7	Shubham Suresh Dhundole	9559743866	mechanical	VII

Thanking You.

Yours faithfully,

*Sanbrage*  
Student Signature

*Sanbrage*  
20/12/2021



Late Shri. Vishnu Waman Thakur Charitable Trusts  
**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hitendra V. Thakur  
President

Ms. Apurva P. Thakur  
Secretary

Dr. Arun Kumar  
Principal

Ref. No. VIVA/VIT/ 905 /20-21-22

Date: 24/12/2021

To,  
HR,  
Ubiquitous Signs Pvt. Ltd.  
Neelima Compound, Survey No. 32,  
Opp. Navjivan Bus Stop, Marathi School, Waliv Road,  
Village-Waliv, Vasai (E).  
Dist-Palghar, Pin-401 208.

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.


As a part of curriculum, the following students of Mechanical Engineering, Sem VII, have to go for training from 20<sup>th</sup> December\*2021 to 08<sup>th</sup> January\*2022.

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| 01. Ms. Shilpa Shantaram Jambhale | 05. Mr. Pratik Anil Varthe      |
| 02. Mr. Milind govind Kemi        | 06. Mr. Rahul Sukhdev Kharat    |
| 03. Mr. Sahil Sunil Khedekar      | 07. Mr. Shubham Suresh Dhandale |
| 04. Mr. Bhavesh Kishor Khatal     |                                 |

This training will help them to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 20<sup>th</sup> December\*2021 to 08<sup>th</sup> January\*2022.

With warm regards,

  
Principal





## AUTO EXPERT PRIVATE LIMITED

### Training Completion Certificate

This Certificate is here by bestowed upon

**Rahul Bhagwan Patil**

For the exceptional performance that has led to successful completion of internship at  
Auto Expert Private limited, Mahindra MMT Service Center, Virar in B.E. Mechanical Degree Course (Sem VII)  
from Viva Institute of Technology.

uration . 13th December 2021 to 5th January 2022 (24 days)  
This activity was awarded by Auto Expert Private Limited



**RENNY SINGH**  
Director



**VINITH SHETHIA**  
Director

**AUTO EXPERT PRIVATE LIMITED**

Mahindra

**Training Completion Certificate**

This Certificate is here by bestowed upon

**Rohit Hari Patil**

For the exceptional performance that has led to successful completion of internship at  
Auto Expert Private limited, Mahindra MMT Service Center, Virar in B.E. Mechanical Degree Course (Sem VII)  
from Viva Institute of Technology.

Duration : 13th December 2021 To 5th January 2022 (24 days)

This activity was awarded by Auto Expert Private Limited

**RENNY SINGH**

Director

**VINIT SHETHIA**

Director



TE 9

# PRECI-MOULDS

UNIT NO - 20 , OBEROI IND.ESTATE

CHINHPADA WALIV VASAJ ( EAST ) PIN - 401208

EMAIL - PRECI-MOULDS@GMAIL.COM

Date :

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Nimish Chandrakant Gharat, a student of BE (Mechanical Engineering- Third Year), Viva Institute Of Technology, Virar has successfully completed 01 (One) month (From 6<sup>th</sup> December, 2021 to 05<sup>th</sup> January, 2022) long internship programme at this Company. During the period of his internship programme with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For, Preci-Moulds,

Sunil D'Souza



UNIT NO - 20 , OBEROI IND.ESTATE  
CHINCHPADA WALIV VASAI ( EAST ) PIN - 401208  
EMAIL - PRECI-MOULDS@GMAIL.COM

Date :

TO WHOM IT MAY CONCERN

This is to certify that Mr. Dhruv Kalpak Kawli, a student of BE (Mechanical Engineering- Third Year), Viva Institute Of Technology, Virar has successfully completed 01 (One) month (From 6<sup>th</sup> December, 2021 to 05<sup>th</sup> January, 2022) long internship programme at this Company. During the period of his internship programme with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For, Preci-Moulds.

Sunil D'Souza

7

# VASAI PHARMA PRODUCTS

Factory:-18 Vishal Industrial Estate, Near Onida Company, Navghar, Vasai Road(East) Dist-Palghar,  
Pincode - 401208

Date : 16-7-21

## INTERNSHIP CERTIFICATE

This is to certify that Mr.Siddhesh Ganpat Neman. BE in Mechanical engineering  
from 4<sup>th</sup> semester 2<sup>nd</sup> year Student of VIVA INSTITUTE OF TECHNOLOGY , Virar E  
has completed his internship in our organisation M/s.VASAI PHARMA PRODUCTS from  
15<sup>th</sup> june 2021 to 15<sup>th</sup> july 2021.

We found him very hardworking and sincere during this training period.

We wish him every success in life.

Thanking you,

FOR VASAI PHARMA PRODUCTS

Auth



Late Shri. Vishnu Waman Thakur Charitable Trust

# VIVA Institute of Technology

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hitendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. Arun Kumar  
HOD - EEE

Ref. No. : VIVA / VIT / 874 / 2021 / 22

Date: 09/12/2021

To,  
Mr. Avinash Shinde,  
GM,  
Angel Auto Wheels Pvt.Ltd.,  
Vasai Workshop, Grishma Garden,  
Behind Balaji Hotel,  
Evershine Gate, Gokhivare, Vasai (E),  
Palghar- 401 208.

## Sub: Request for Internship.

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.

As a part of curriculum, the following student of Mechanical Engineering, SEM V has to go for training from 10<sup>th</sup> December 2021 to 26<sup>th</sup> December 2021.

01. Mr. Raj Kirankumar Nair.

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 10<sup>th</sup> December 2021 to 26<sup>th</sup> December 2021.

With warm regards,

  
Principal



9/12/21

Principal  
Institute of Technology  
Mira, Virar (E).

*Prin*  
9/12/21

Subject: Regarding internship.

Subject: Regarding internship.

Grant permission for internship from  
26/12/21

10/12/21

are as under.

Address of Company:  
- Angle Auto wheels Pvt Ltd  
Grishma Gardens, Behind  
Balaji Restaurant,  
Gokhivore, Vasai Road  
(East) Palghar - 401208

Avinash Shinde 973044990

Students details:

S. No.	Name	Mob. No.	Branch	Semester
1	Nair Raj Kirankumar	9146669282	Mechanical	5 <sup>th</sup>

Yours faithfully,  
Raj

*Raj*  
29/12/21

Yours faithfully,

*Raj*  
Principal Signature

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Raj Kirankumar Nair worked as a trainee technician in our company from 10 Dec 21 to 31 Dec 21 with our entire satisfaction, during his working period we found him a sincere, honest, hard working, dedicated employee with professional attitude and very good knowledge.

We wish him every success in life.

Authorised Signatory



Date: 10/12/2022

To,  
The Principal,  
VIVA Institute of Technology,  
Shirgaon, Virar (E).

Through HOD

Subject : Regarding Internship.

Respected Sir,

Kindly grant permission for internship from 10/12/2022 to 10/01/2023.

Details are as under:

Address of Company:

Diotech Engineers  
Plot no. 3, Diwan & Sons Ind. Area  
Village - Vexoot, District - Tal. Shirgaon, Dist. Palghar  
Pincode - 401504

Students details:

Sr. No.	Name	Mat. No.	Branch	Semester
1.	Chinor Suresh Patel	744286965	Mechanical Engineering	V

Thanking You

Prin  
Yours faithfully,

Prin  
6/12/21

Late Shri. Vishnu Waman Thakur Charitable Trust's  
**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai.

**Hitendra V. Thakur**  
President

**Ms. Aparna P. Thakur**  
Secretary

**Dr. Arun K. Kulkarni**  
Principal

Ref. No. : VIVA/VIT/ 856 /2021-22

Date: 26/12/21

To,  
Dietech Engineers,  
Plot No.3, Diwan & Sons Industrial Area,  
Village-Veroor, Manor Rd.  
Tal & Dist-Palghar 401 404.

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.

As a part of curriculum, the following student of Mechanical Engineering, Sem V has to go for training from 10<sup>th</sup> December\*2021 to 10<sup>th</sup> January\*2022.

**01. Mr.Chinar Suresh Patil**

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 10<sup>th</sup> December\*2021 to 10<sup>th</sup> January\*2022.

With warm regards,

  
Principal  
26/12/21



5

Mob: 9921054250  
9270156058



# DIETECH ENGINEERS

**Mfg.of. : High precision press tools & precision sheet metal parts.**

Factory: Plot No.03, Diwan & Sons Ind. Est., Village - Vevour,  
Manor Road, Palghar (E), Pin:- 401 404, Dist: Palghar

Date: 10 / 01 / 2022

## CERTIFICATE OF INTERNSHIP

This is to certify that **MR. Chinar Suresh Patil** has successfully completed his internship program with **DIE-TECH ENGINEERS** his internship tenure was from **10th December 2021 to 10th January 2022**.

Here he acquired knowledge of process of making a product and was actively and diligently involved in the projects and tasks assigned to him.

He has been a brilliant intern and will be an experienced asset in the field of mechanics.

We wish him a bright future.

Ajay R. Chaphekar

Proprietor

Permitted

Date: 0-12-21

6-12-21

To,  
The Principal,  
VIVA Institute of Technology,  
Shirgaon, Virar (E).

Through HOD

Subject : Regarding Internship.

Respected Sir,

Kindly grant permission for internship from 10-12-2021 to 10-1-2022

Details are as under:

Address of Company:

MARUTI SUZUKI, SATSERVICE  
ANDRADES BHAVAN SURIBYNO-277  
UMELA PHATAK, VASAT STATION RD,  
VASAT WEST, MAHARASHTRA - PIN-401202 / 9923670224

Students details:

Sr. No	Name	Mob. No.	Branch	Semester
1	SAARTH SANJAY PATIL	9764484350	MECHANICAL ENGINEERING	V

Thanking You

Yours faithfully,

Signature  
4/12/21

Patil



Late Shri. Vishnu Waman Thakur Charitable Trust's

# VIVA Institute of Technology

Approved by AICTE, DTE and Affiliated to University of Mumbai

**Dr. Hitendra V. Thakur**  
President

**Ms. Aparna P. Thakur**  
Secretary

**Dr. Arun Kumar**  
Principal

Ref. No. : VIVA / VIT / 855 / 2021 / 27

Date: 06/12/21

To,  
Manager,  
MARUTI-SUZUKI,  
Sai Service, Andrades Bhavan, Survey No. 277,  
Umela Pathak, Vasai Station Rd.  
Vasai (w) Maharashtra- 401 202.

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.


As a part of curriculum, the following student of **Mechanical Engineering, SEM V** has to go for training from **10<sup>th</sup> December'2021 to 10<sup>th</sup> January'2022**.

**1. Mr. Saarth Sanjay Patil**

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from **10<sup>th</sup> December'2021 to 10<sup>th</sup> January'2022**.

With warm regards,

  
Principal





**SAI SERVICE PRIVATE LIMITED**

**MARUTI**



Akshaydas Bhavani, Survey No. 277/A, Umale Phata, Station Road, Vashi (West), Dist. Palghar - 401 402  
Tel: 0220-2312484 / 85 Fax: 0220-2312485  
CIN : U60210PN18867TC037899

15<sup>th</sup> February, 2022

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr. Patil Saarth Sanjay has successfully completed Inplant Training from 10<sup>th</sup> December, 2021 to 10<sup>th</sup> January, 2022. During his tenure with our organization he was sincere, honest and hard working.

We wish him every success in his future endeavors.

Sincerely,

Authorized Signatory

Date: 13/12/21

To,  
The Principal,  
VIVA Institute of Technology,  
Shirgaon, Virar (E).

Through HOD

**Subject : Regarding Internship.**

Respected Sir,

Kindly grant permission for internship from 13/12/21 to 15-01-2022

Details are as under. VINAY GEA 9857551192

**Address of Company:**

MOHINDRA OVERLAPERS  
MARANDI BULL POWDER  
WIDBET W/ LATER BOLLWALL  
PHOTOCOPY GLOBAL CITY

**Students details:**

Sr. No.	Name	Mob. No.	Branch	Semester
1	ROHIT HARI PATIL	9781750913	Mech. Engrg.	1 <sup>st</sup>
2	PRANEESH GANESH PRONKAR	9609351396	Mech. Engrg.	2 <sup>nd</sup>
3	SIDDHESH GANPAT NEEMAN	9983609125	Mech. Engrg.	3 <sup>rd</sup>
4	RAHUL BHAIWAN PATIL	9209331157	Mech. Engrg.	4 <sup>th</sup>

Thanking You.

Yours faithfully,

Student Signature



Unit Spt. Vishu, Wamun, Thosar Bhambale, Pore, etc.

# VIVA Institute of Technology

Approved by AICTE, DTE and Affiliated to the University of Mumbai

Shri. Hitendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. Arun K. Bhat  
Principal

Ref. No. /VIVA /VIT/ 882 /2021-22

date: 12/12/2021

To,  
Mahindra Auto Expert,  
Naringi Reti Bandar,  
Near Railway Phatak,  
Global City, Virar (W).

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.

As a part of curriculum, the following students of Mechanical Engineering, have to go for training from 13<sup>th</sup> December '2021 to 05<sup>th</sup> January '2022.

01. Mr. Rohit Hari Patil	-	Sem. VII
02. Mr. Pranesh Sanjay Padvekar	-	Sem. V
03. Mr. Siddhesh Ganpat Neman	-	Sem. V
04. Mr. Rahul Bhagwan Patil	-	Sem. VII

This training will help them to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 13<sup>th</sup> December '2021 to 05<sup>th</sup> January '2022.

With warm regards,

*[Signature]*  
12.12.2021  
Principal



# AUTO EXPERT PRIVATE LIMITED

## Training Completion Certificate

This Certificate is here by bestowed upon

**Siddhesh Ganpat Neman**

For the exceptional performance that has led to successful completion of internship at  
Auto Expert Private limited, Mahindra MMT Service Center, Virar in B.E. Mechanical Degree Course (Sem V)  
from Viva Institute of Technology.

Duration : 13th December 2021 To 5th January 2022 (24 days)

This activity was awarded by Auto Expert Private Limited

  
**RENNY SINGH**  
Director

  
**VINIT SHETHIA**  
Director

**AUTO EXPERT PRIVATE LIMITED****Training Completion Certificate**

This Certificate is here by bestowed upon

**Pranesh Sanjay Padvekar**

For the exceptional performance that has led to successful completion of internship at  
Auto Expert Private limited, Mahindra MMT Service Center, Virar in B.E. Mechanical Degree Course (Sem V)  
from Viva Institute of Technology.

ration : 13th December 2021 To 5th January 2022 (24 days)

This activity was awarded by Auto Expert Private Limited

  
**RENNY SINGH**  
Director



  
**VINIT SHETHIA**  
Director



Date: 13/12/21

To,  
The Principal,  
VIVA Institute of Technology,  
Shirgaon, Virar (E).

Through HOD

**Subject : Regarding Internship.**

Respected Sir,

Kindly grant permission for internship from 15/12/2021 to 28/12/2021

Details are as under:

**Address of Company:** Anjali Bandekar (Assistant Manager HR)  
Automotive Manufacturers Private Limited Mob. No. 9095737430  
Survey No. 97/9, 98/2,  
National Highway No. 8,  
(Mumbai - Ahmedabad Highway)  
Sasunagar, Naigaon, Tal. Vasar.  
**Students details:**

Sr. No.	Name	Mob. No.	Branch	Semester
1.	Devendra Dasi Daskar	7502541513	Mechanical Engineering	V <sup>th</sup> Sem.

Thanking You.

Yours faithfully,

*Signature*

Student Signature

*Signature*  
13/12/21



Late Shri. Vishnu Waman Thakur Charitable Trust  
**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hitendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. Anil K. Kulkarni

Ref. No. VIVA/VIT/SSC/2023/22

Date: 13-12-2021

To,  
Anjali Bandekar,  
Assistant Manager (HR),  
Automotive Manufacturers Pvt. Ltd.  
Survey No. 97/9, 98/2,  
National Highway No. 8,  
Mumbai-Ahmedabad Highway  
Sasunavghar, Naigaon, Tal. Vasai.

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.

As a part of curriculum, the following student of Mechanical Engineering, Sem V, has to go for training from 15<sup>th</sup> December 2021 to 28<sup>th</sup> December 2021.

**01. Mr. Devendra Ravi Dorkar**

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 15<sup>th</sup> December 2021 to 28<sup>th</sup> December 2021.

With warm regards,

Principal





**AUTOMOTIVE MANUFACTURERS PRIVATE LIMITED**



**ASHOK LEYLAND**  
HEAVY VEHICLES

Date: 28/12/21

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that as a part of the curriculum, Mr. Devendra Ravi Dorkar being a Mechanical Engineering student, Sem V, has undergone a training from 15<sup>th</sup> December, 2021 to 28<sup>th</sup> December, 2021.

We wish him all the very best for his future.

For Automotive Manufacturers Pvt Ltd.

*V. R. Yewale*

Vijay Yewale  
Branch Manager  
AMPL - Naigaon



To,  
The Principal,  
VIVA Institute of Technology,  
Shirgaon, Virar (E).

Date: 13/12/2021

Through HOD

Subject : Regarding Internship.

Respected Sir,

Kindly grant permission for internship from 15/12/2021 to 28/12/2021

Details are as under.

**Address of Company:** Anjali Bandekar (Assistant Manager H&G)  
Automotive Manufacturers Private Limited Mob. No. 9695739950  
Survey No. 97/9, 98/2,  
National Highway No. 8,  
(Mumbai - Ahmedabad Highway) -  
Sasunagar, Naigaon, Tal. Vasar.

**Students details:**

Sr. No.	Name	Mob. No.	Branch	Semester
1	Devendra Ravi Daxare	7208541513	Mechanical Engineering	V <sup>th</sup> Sem.

Thanking You.

Yours faithfully,

- Devendra

Student Signature

*Devendra*  
13/12/21



AUTOMOTIVE MANUFACTURERS PRIVATE LIMITED



ASHOK LEYLAND  
HEAVY VEHICLES

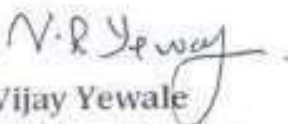
Date: 28/12/21

TO WHOMSOEVER IT MAY CONCERN

This is to certify that as a part of the curriculum, Mr. Devendra Ravi Dorkar being a Mechanical Engineering student, Sem V, has undergone a training from 15<sup>th</sup> December, 2021 to 28<sup>th</sup> December, 2021.

We wish him all the very best for his future.

For Automotive Manufacturers Pvt Ltd.

  
Vijay Yewale  
Branch Manager  
AMPL - Naigaon



**VIVA Institute of Technology**  
 W-1, Hinglaj, Yashwantrao Chavan, Vashi (East), Taluka: Navi Mumbai, District: Thane-401 001, Maharashtra  
**Department of Mechanical Engineering**  
**Internship Record 2021-22**

Sr. No.	Academic Year	Name of Student	Year	Internship	Place	DATE
1	2021-22	Devyendra Dantur	TE	AUTOMOTIVE MANUFACTURING PVT LTD	Salgaon	15/12/2021-28/12/2021
2	2021-22	Sudhesh Neman	TE	AUTO EXPERT PVT LTD	Vasai	13/12/2021-5/01/2022
3	2021-22	Pranesh Padwal	TE	AUTO EXPERT PVT LTD	Vasai	13/12/2021-5/01/2022
4	2021-22	Sourabh Patil	TE	SAT SERVICE PVT LTD	Vasai	18/12/2021-30/01/2022
5	2021-22	Chinar Patil	TE	DIETECH ENGINEERS	Falghat	18/12/2021-30/01/2022
6	2021-22	Raj nar	TE	ANGEL AUTO WHEELS PVT LTD	Vasai	20/12/2021-31/12/2021
7	2021-22	Siddhesh Neman	TE	VASAI PHARMA PRODUCTS	Vasai	15/06/2021-15/07/2021
8	2021-22	Dhruv kawi	TE	PREC-MOULDS	Vasai	6/12/2021-5/01/2022
9	2021-22	Nimish Dharat	TE	PREC-MOULDS	Vasai	5/12/2021-5/01/2022
10	2021-22	Rohit Patil	BE	AUTO EXPERT PVT LTD	Vasai	13/12/2021-5/01/2022
11	2021-22	Rahul Patil	BE	AUTO EXPERT PVT LTD	Vasai	13/12/2021-5/01/2022
12	2021-22	Shruti Jambhale	BE	UBIQUITOUS SIGNS PVT LTD	Vasai	27/11/2021-4/01/2022
13	2021-22	Mind Keri	BE	UBIQUITOUS SIGNS PVT LTD	Vasai	27/11/2021-4/01/2022
14	2021-22	Rahul Khaplekar	BE	UBIQUITOUS SIGNS PVT LTD	Vasai	27/11/2021-4/01/2022
15	2021-22	Bhuvash Chavali	BE	UBIQUITOUS SIGNS PVT LTD	Vasai	27/11/2021-4/01/2022
16	2021-22	Pratik Varthe	BE	UBIQUITOUS SIGNS PVT LTD	Vasai	27/11/2021-4/01/2022
17	2021-22	Rahul Khari	BE	UBIQUITOUS SIGNS PVT LTD	Vasai	27/11/2021-4/01/2022
18	2021-22	Shubham Dhundate	BE	UBIQUITOUS SIGNS PVT LTD	Vasai	27/11/2021-4/01/2022
19	2021-22	Rohit Patil	BE	VASAI PHARMA PRODUCTS	Vasai	15/06/2021-15/07/2021
20	2021-22	Rahul Patil	BE	VASAI PHARMA PRODUCTS	Vasai	15/06/2021-15/07/2021
21	2021-22	Pooja Patil	BE	CENTRAL RAILWAY	Matunga	3/08/2021-4/09/2021
22	2021-22	Aishwarya Vairak	BE	PREC-MOULDS	Vasai	5/12/2021-5/01/2022
23	2021-22	Vipul patil	BE	ENJO LEARN & BUILD PVT LTD	Delhi	8/02/2021-11/07/2021
24	2021-22	Nihar Mhase	BE	ENJO LEARN & BUILD PVT LTD	Delhi	20/05/2021-11/07/2021
25	2021-22	Varun Sankhe	BE	ARAT DRUGS LTD	Tarapur	9/12/2021-28/12/2021
26	2021-22	Amit Patil	BE	STERLING ROTATING SYSTEM PVT LTD	Vasai	28/11/2021-20/01/2022
27	2021-22	Aniket Sankar	BE	STERLING ROTATING SYSTEM PVT LTD	Vasai	28/11/2021-20/01/2022
28	2021-22	Vipul patil	BE	PRINT LINE	Mira Road	16/07/2021-19/07/2022
29	2021-22	Nihar Mhase	BE	DECLIBELS PVT LTD	Banglore	1/08/2021-27/08/2021
30	2021-22	Nayodh Kumar	BE	O-HOMER ENGINEERING PVT LTD	Vasai	6/12/2021-12/01/2022
31	2021-22	Shravyash Chavan	BE	FINULENT SOLUTIONS LLP	Mahad	1/08/2021-28/02/2022
32	2021-22	Niraj Mahamunkar	BE	ACCENT TECHNO SOLUTIONS PVT LTD	Mumbai	3/01/2022-25/01/2022
33	2021-22	Saurabh Desai	BE	ACCENT TECHNO SOLUTIONS PVT LTD	Mumbai	3/01/2022-25/01/2022
34	2021-22	Omkar Chavan	BE	ACCENT TECHNO SOLUTIONS PVT LTD	Mumbai	3/01/2022-25/01/2022
35	2021-22	Nishant Chavan	BE	ACCENT TECHNO SOLUTIONS PVT LTD	Mumbai	3/01/2022-25/01/2022
36	2021-22	Deepak Bhosale	BE	ACCENT TECHNO SOLUTIONS PVT LTD	Mumbai	3/01/2022-25/01/2022
37	2021-22	Vish Jogle	BE	Wasan Trucking Pvt Ltd	Mumbai	28/04/2021-28/07/2021
38	2021-22	Pankaj Devale	BE	Wasan Trucking Pvt Ltd	Mumbai	28/04/2021-28/07/2021
39	2021-22	Omkar Chavan	BE	Wasan Trucking Pvt Ltd	Mumbai	28/04/2021-28/07/2021
40	2021-22	Saurabh Desai	BE	Origen Corporation Services Pvt Ltd	Mumbai	27/12/2021-08/01/2022
41	2021-22	Rohin Kadam	BE	Auto Controls	Mumbai	28/12/2021-11/01/2022
42	2021-22	Ashut Kutarde	BE	WESTERN RAILWAY	Lower Parel	13/12/2021-27/12/2021
43	2021-22	Yash Jogle	BE	WESTERN RAILWAY	Lower Parel	13/12/2021-27/12/2021
44	2021-22	Manish Gopagari	BE	WESTERN RAILWAY	Lower Parel	13/12/2021-27/12/2021
45	2021-22	Deepak Bhosale	BE	WESTERN RAILWAY	Lower Parel	13/12/2021-27/12/2021
46	2021-22	Nitesh Sutar	BE	WESTERN RAILWAY	Lower Parel	13/12/2021-27/12/2021

# ELECTRICAL TRAINING CENTRE

EMU CARSHED, VIRAR



पश्चिम रेलवे  
Western Railway

## CERTIFICATE

Certified that Mr./Miss AMAN PANDEY  
Studying B.E./B.TECH/DIPLOMA in MECHANICAL  
Engineering in Sem VI of VIVA INSTITUTE OF  
TECHNOLOGY has successfully completed Industrial Training  
from 08/06/2022 to 25/06/2022 at EMU CARSHED VIRAR, W. R.

Date : 25/6/2022

PRINCIPAL  
ELECTRICAL TRAINING CENTRE  
EMU CARSHED, VIRAR

### TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY THAT AATIF BILAL HAJU HAS SUCCESSFULLY COMPLETED HIS TRAINING WITH **TECHNO PRINT INDIA PVT.LTD.** HIS TRAINING WAS 8<sup>TH</sup> June 2022 TO 22<sup>ND</sup> June 2022. HE WAS WORKING WITH MECHANICAL DEPARTMENT AND WAS ACTIVELY INVOLVED IN THE PROJECTS AND TASKS ASSIGNED TO HIM.

DURING THE SPAN OF TRAINING, WE FOUND HIM PUNCTUAL AND HARD WORKING PERSON.HIS LEARNING POWER ARE GOOD.HIS FEEDBACK AND EVALUATION PROVED THAT HE LEARNED KEENLY. HIS INTERPERSONAL AND COMMUNICATION SKILLS ARE BRILLIANT.

WE WISH HIM ALL THE SUCCESS FOR HIS FUTURE CAREER.

FOR TECHNO PRINT INDIA PVT.LTD

  
AUTHORISED SIGNATORY



## PACIFIC TOOLS PVT. LTD.

Date: 06<sup>th</sup> July 2022

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Anas Abrar Shaikh**, A Mechanical Engineering Student of VIVA Institute of Technology, Shirgaon, Virat (East) has completed overall internship from our Firm from 09<sup>th</sup> June 2022 to 06<sup>th</sup> July 2022 and was found to be sincere, honest and hardworking.

We wish him all the best for his future endeavour.

Thanks and regards,

For Pacific Tools Pvt. Ltd.

Rakesh Mirde - HR



An ISO 9001:2015 Company

Ragrabha Land Mark Industrial Estate, Building No. 1 B, Bhondlipada  
Sativali Road, Gokhware, Vasai East Dist. Palghar - 401208 Maharashtra, India  
Phone: +91 250 - 2451990 / 2451991  
E-mail: info@pacifictools.in Website: www.pacifictools.in

CIN No. U33112TN2001PT

TABLET TOOLING • TOOL INSPECTION • TOOL POLISHING

Turning Technology into

# CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS PROUDLY PRESENTED TO

ASHUTOSH ASHOK PATIL

in recognition of his/~~her~~ hardwork and  
dedication in completing the internship from  
10/06/2022 to 10/07/2022 at Palladium Automotive.



HR Admin



# Subir Precision Industries Pvt. Ltd.



ISO 9001:2015  
Certified by IRCA



MGMT. SYS.  
R&C 071

Fact. : At. S. No. 7 & 56/8 + 8, Village Gorad, Near - Ganeshpuri, Tal. Wada, Dist. Palghar, Pin Code - 401 204.  
Correspondence Add. : A-201, 2nd Flr. Bldg. No. 1, Mohak House, Opp. Morya Nagar, Near Taarwadi,  
Manvel Pada Rd, Virar (E), Dist. Palghar - 401 305. (Mob. 97656 98239)  
CIN No. : U27106MH1995PTC085924

## TO WHOM IT MAY CONCERN

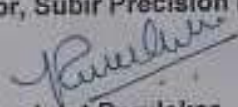
This is to certify that Gyanendra Amarsingh Bogati has successfully completed his training with Subir Precision Industries Pvt. Ltd.

His training was from 01/06/2022 to 30/06/2022. He was working with Mechanical Department and was actively involved in the projects and tasks assigned to him.

During the span of training, we found he was very punctual and hardworking person. His Learning power is good. His feedback and evaluation proved that he learned keenly. His interpersonal and communication skills are brilliant.

We wish him all the success for his future career.

For, Subir Precision Industries Pvt. Ltd.

  
Prashant Parulekar

Manager, Accounts & Administration.

Date: - 20/07/2022





न्यूक्लियर पावर कॉर्पोरेशन ऑफ इंडिया लिमिटेड  
NUCLEAR POWER CORPORATION OF INDIA LIMITED

(भारत सरकार का उद्यम A Govt. of India Enterprise)

एनपीसीआईएल, मुख्यालय, 7वां तल, नार्थ विंग, वि.सा.भवन, अनुशक्तिनगर, मुंबई-400094  
NPCIL, HQs, 7<sup>th</sup> Floor, North Wing, V.S. Bhavan, Anushaktinagar, Mumbai - 400094  
सी.आई.एल. CIN :U40104 MH 1987 GOI 149458



No. NPCIL/CO/HR-T&TD/PW/2022/115

June 30, 2022.

4/7/22

C E R T I F I C A T E

This is to certify that Shri Dhaval Dinesh More, student 3<sup>rd</sup> year, (Sem.-/IV) of Mechanical Engineering Degree Course Viva Institute of Technology, Virar(E) Palghar, underwent internship/training in the Organisation from 01/06/2022 to 30/06/2022.

During this period, the student did practical training/internship on “ Finite element modelling, analysis” from SA&S Group in NPCIL. It is further certified that during the period, the student was sincere and his conduct was satisfactory.

4/7/22

तिरुपति सैम्युल राजकुमार T. SAMUEL RAJAKUMAR  
वरिष्ठ प्रबंधक (मा सं)SR.MGR(HRIS)

# SUNS PRODUCTS

Manufacturers of: All Type of Sheet Metal Electrical, Electronic Parts and Furniture Fittings  
Office & Work: Parmar Techno Center, Phase 2, Gala No.98, Pelhar Village Vasai Phata, Vasai (E)  
Dist Palghar-401208 Email sunsproducts60@gmail.com., GSTIN: 27ALSPM1889J178

Date: 28<sup>th</sup> June 2022

## TO WHOMSOEVER IT MAY CONCERN

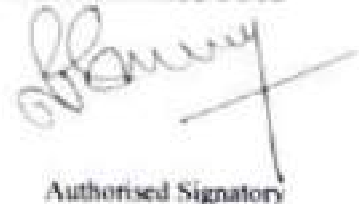
This is to certify that Mr. DHRUV KALPAK KAWLI, a student of mechanical engineering department from VIVA INSTITUTE OF TECHNOLOGY SHIRGAON, VIRAR (EAST) has successfully completed his 15 days internship program (13<sup>th</sup> June to 28<sup>th</sup> June) in our company SUNS PRODUCTS. His internship activity includes familiarization to all department and operational activities around the manufacturing of the product.

During the internship, the candidate was exposed to different processes and was found to be punctual, hardworking and composed.

We wish him all success in his future endeavour.



For SUNS PRODUCTS

  
Authorised Signatory

# AQUENE AUTO

BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. Dhruv Krutin Patil** has successfully completed his internship program with **AQUENE AUTO** his internship tenure was from 5<sup>th</sup> June 2022 to 5<sup>th</sup> July 2022.

Here he acquired knowledge of process of maintain an automobile and was actively and diligently involved in the projects and tasks assigned to him.

He has been a brilliant intern and will be an experienced asset in the field of automobile.

We wish him all success in his future endeavours.

For Aquene Auto,

  
Vikram Mehta

- Factory :**
- Plot No.75 AB, Govt. Industrial Estate, Ganesh Nagar, Charkop, Kandivali (W), Mumbai 400067.
  - Plot No. 14 ABC, Govt. Industrial Estate, Charkop, Kandivali (W), Mumbai 400067.
  - Part of Survey No. 95,96 & 97, Village Kansumara, Dist. Jamnagar - 361005 (Gujrat).

Date: 23-07-2022

## Certificate of Internship

This is to certify that Mr. Hrishikesh S. Nimbalkar has completed his internship in our company from 1<sup>st</sup> June to 23 July 2022.

During this period, he involved himself in production, Quality & Engineering activities.

His Performance was good & to the satisfaction of management. We found him sincere & disciplined.

Wish him all the best for his future endeavors.

FOR ORIENTAL ELECTRICAL COMPONENT PVT LTD.



AUTHORISED SIGNATORY



## Sawant cooling services.

Central plant A/c service

---

3/3 Shree ram Samarth Darshan Chawl, P&T colony Dombivli (c)421-201

Contact no :-9869450783 / 9594437357

Email ID -[sawantcooling69@gmail.com](mailto:sawantcooling69@gmail.com)

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Date:- 30/6/2022

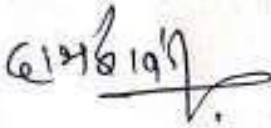
TO WHOMSOEVER IT MAY CONCERN

This to certify that Mr. Hritik Shrikant Rane, a student of T.E. Mechanical Engineering, from Viva Institute of Technology, Shirgaon virar (East). Has successfully completed 1 month Internship training on Central plant air condition system at Sawant Cooling Services GSTIN: - 27CFIP51170N1ZX

From 1<sup>st</sup> June 2022 to 1<sup>st</sup> July 2022. His performance during the training was outstanding.

We wish him all the best in future endeavors.

For Sawant Colling



AUTHORISED SIGNATAURE

# AQUENE AUTO

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BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## CERTIFICATE OF INTERNSHIP

This is to certify that Mr. Atharva Milind Kulkarni has successfully completed his internship program with AQUENE AUTO his internship tenure was from 5<sup>th</sup> June 2022 to 5<sup>th</sup> July 2022.

Here he acquired knowledge of process of maintain an automobile and was actively and diligently involved in the projects and tasks assigned to him.

He has been a brilliant intern and will be an experienced asset in the field of automobile.

We wish him all success in his future endeavours.

For Aquene Auto,

  
Vikram Mehta

# AQUENE AUTO

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BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. **Atharva Milind Kulkarni**, a student of TE (Mechanical Engineering- Third Year), Viva Institute Of Technology, Virar has successfully completed a 01 (One) month long internship programme, from 5<sup>th</sup> June, 2022 to 05<sup>th</sup> July, 2022 at this Company.

During the period of his internship programme with us he was found to be enthusiastic and observant. His performance has been assessed as **Good**.

We wish him all success in his future endeavours.

For Aquene Auto,

  
Vikram Mehta

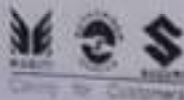


**TO WHOMSOEVER IT MAY CONCERN**

We wish him all the best for his upcoming career,

For Factories of Future.

Director



**SAI SERVICE PRIVATE LIMITED**

**MARUTI**

Andrades Bhavan, Survey No # 277/A, Umela Phatak, Station Road, Vasai (West), Dist. Palghar - 401 402  
Tel: 0250-2312464 / 65 Fax: 0250-2312466  
CIN : U60210PN1985PTC037099

7<sup>th</sup> July, 2022

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr. Maninder Singh Ravinder Singh Surme, has successfully completed I Implant Training from 2<sup>nd</sup> June, 2022 to 2<sup>nd</sup> July, 2022. During his tenure with our organization he was sincere, honest and hard working.

We wish him every success in his future endeavors.

Sincerely,

Authorised Signatory

Registered Office : C/o. Sai Service Pvt. Ltd., Mumbai Pune Road, Phughewadi, Pune - 411 012.



Late Shri. Vishnu Waman Thakur Charitable Trust's  
**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai

**Shri. Hitendra V. Thakur**  
President

**Ms. Aparna P. Thakur**  
Secretary

**Dr. Arun Kumar**  
Principal

Ref. No. : VIVA / VIT / 1423 / 2021-22

Date : 01/06/2022

To,  
Manager,  
Sai Service,  
Vasai (w).

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.

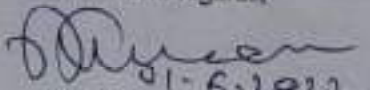
As a part of curriculum, the following student of **Mechanical Engineering, sem VI** has to go for training from **2<sup>nd</sup> June 2022 to 2<sup>nd</sup> July 2022**.

**02. Mr. Maninder Singh Ravinder Singh Surme.**

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from **2<sup>nd</sup> June 2022 to 2<sup>nd</sup> July 2022**.

With warm regards,

  
Principal





**COACH CARE CENTRE  
BANDRA TERMINUS**  
(ISO 9001:2008 CERTIFIED)

Office of SR. CDO  
Coach Care Center BDTS,  
Western Railway, Mumbai  
Ph 022-26476190

No. BDTS/M442/Project Trg.

Date: - 06/07/2022

### **CERTIFICATE OF PROJECT TRAINING**

This is to certify that Mr. MOH FAISAL SHAIKH design. STUDENT of **VIVA INSTITUTE OF TECHNOLOGY VIRAR** has successfully completed his full time internship -cum- training from 06.06.2022 to 05.07.2022 in our organization.

He has shown keen interest in learning and understanding the Design, Development & Maintenance of Coaches during this period.

We wish him the best for his academic success and professional career ahead.

  
DIVISIONAL MECHANICAL  
ENGINEER (Chg) BDTS  
Divisional Mechanical Engineer (Chg)  
Western Railway, Bandra Terminus



**COACH CARE CENTRE  
BANDRA TERMINUS**  
(ISO 9001:2008 CERTIFIED)

Office of SR. CDO  
Coach Care Center BDTS,  
Western Railway, Mumbai  
Ph 022-26476190

No. BDTS/M442/Project Trg.


Date: - 06/07/2022

### **CERTIFICATE OF PROJECT TRAINING**

This is to certify that Mr. NAWAZ SAYYED design. STUDENT of **VIVA INSTITUTE OF TECHNOLOGY VIRAR** has successfully completed his full time internship -cum- training from 06.06.2022 to 05.07.2022 in our organization.

He has shown keen interest in learning and understanding the Design, Development & Maintenance of Coaches during this period.

We wish him the best for his academic success and professional career ahead.

  
**DIVISIONAL MECHANICAL  
ENGINEER (Cbg) - BDTS**

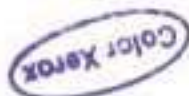
Divisional Mechanical Engineer (Cbg)  
Western Railway, Bandra Terminus

### TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY THAT **OMKAR PANDURANG HELONDE** HAS SUCCESSFULLY COMPLETED HIS TRAINING WITH **TECHNO PRINT INDIA PVT.LTD.** HIS TRAINING WAS 8<sup>TH</sup> June 2022 TO 22<sup>ND</sup> June 2022. HE WAS WORKING WITH MECHANICAL DEPARTMENT AND WAS ACTIVELY INVOLVED IN THE PROJECTS AND TASKS ASSIGNED TO HIM.

DURING THE SPAN OF TRAINING, WE FOUND HIM PUNCTUAL AND HARD WORKING PERSON. HIS LEARNING POWER ARE GOOD. HIS FEEDBACK AND EVALUATION PROVED THAT HE LEARNED KEENLY. HIS INTERPERSONAL AND COMMUNICATION SKILLS ARE BRILLIANT.

WE WISH HIM ALL THE SUCCESS FOR HIS FUTURE CAREER.



FOR TECHNO PRINT INDIA PVT.LTD



A handwritten signature in blue ink.

AUTHORISED SIGNATORY

## WESTERN RAILWAYS



पश्चिम रेल्वे  
Western Railway

Office of CWM/PL  
Western Railway,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower  
Parel, Mumbai - 400 013

No: BTC/PL/2022/13

Date: 09<sup>th</sup> July, 2022.

To,  
The Principal,  
VIVA Institute of Technology,  
At post- Shirgao,  
Virar (East)- 401305

SUB: Completion of Internship Training.

Ref: CWM/PL's Office L NO. E1131/CW/1 Vol-IV Dt. 08/06/2022

With reference to above, Mr. Yash Satish Palande, of your institute has successfully completed the Internship Training in this workshop from 10/06/2022 to 09/07/2022. The topics covered in training are:

1. Air brake system of Railway Coaches.
2. Bogie components - Its function and repair work.
3. Maintenance practice of LHB FIAT Bogie.
4. Wheel, Axle - Process of assembly and failure analysis.
5. Precision measuring instruments used in workshop for different mechanical operations and assembly work.
6. Bearing Assembly & dismantling process, Bearing failure study.
7. Shock absorber and springs.
8. Coach body corrosion repair.
9. Painting procedure of railway coaches.
10. Furnishing of AC & Non AC coaches.
11. ISO concept and IMS

He has submitted Technical Internship Program Report at this workshop.  
With Best Wishes,

11/7/22  
कार. **WM(R)/PLR**  
Works Manager (R)  
पश्चिम रेल्वे  
Western Railway  
निचा पारेल, मुंबई-४०००१३  
पारेल, मुंबई-४०००१३

Date :- 09<sup>th</sup> July, 2022**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Mr. Chirag Umashankar Patel** From **Viva Institute of technology** was with us as an intern in the Service Department from **09<sup>th</sup> Jun, 2022** till **09<sup>th</sup> July, 2022**. During this period he underwent a Study project under the guidance of **Mr. Shashikant Poojary** from Service Department.

During the Internship tenure, we found Chirag Umashankar Patel to be sincere & diligent in his work.

We wish Chirag success for his future endeavours.

Yours Sincerely,

**SHREEM AUTOMOBILES PVT. LTD.**



**HR & ADMINISTRATION DEPARTMENT**



**REF : 1008**

**DATE : 25/06/2022**

**TO WHOMSOEVER IT MAY CONCERN**

**This is to certify that MR CHINAR SURESH PATIL has successfully completed his Internship program in our Organization . Through out his Internship period [01/06/2022 to 25/06/2022] with us we have found him hard working, sincere and work conscious.**

**We wish him a bright future.**

**Yours faithfully,**

**For GANESH MULTITECH ENG PVT. LTD.**

**GENERAL MANAGER**

**[SURESH KOTIAN]**



# ELECTRICAL TRAINING CENTRE

## EMU CARSHED, VIRAR



पश्चिम रेलवे  
Western Railway

### CERTIFICATE

Certified that Mr./Miss. JANGAM PRATHAMESH SUDHAKAR  
Studying B.E./B.TECH/DIPLOMA in MECHANICAL  
Engineering in Sem VI of VIVA INSTITUTE OF  
TECHNOLOGY..... has successfully completed Industrial Training  
from 06/06/2022 to 25/06/2022 at EMU CARSHED VIRAR, W. R.

Date : 25/6/2022...

PRINCIPAL  
ELECTRICAL TRAINING CENTRE  
EMU CARSHED, VIRAR

# AQUENE AUTO

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BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. **Sandeep Sanjay Rahate**, a student of TE (Mechanical Engineering- Third Year), Viva Institute Of Technology, Virar has successfully completed a 01 (One) month long internship programme, from 5<sup>th</sup> June, 2022 to 05<sup>th</sup> July, 2022 at this Company.

During the period of his internship programme with us he was found to be enthusiastic and observant. His performance has been assessed as **Good**.

We wish him all success in his future endeavours.

For Aquene Auto,

  
Vikram Mehta

# AQUENE AUTO

BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. Sandeep Sanjay Rahate** has successfully completed his internship program with **AQUENE AUTO** his internship tenure was from 5<sup>th</sup> June 2022 to 5<sup>th</sup> July 2022.

Here he acquired knowledge of process of maintain an automobile and was actively and diligently involved in the projects and tasks assigned to him.

He has been a brilliant intern and will be an experienced asset in the field of automobile.

We wish him all success in his future endeavours.

For Aquene Auto,

  
Vikram Mehta

# ELECTRICAL TRAINING CENTRE

## EMU CARSHED, VIRAR



पश्चिम रेलवे  
Western Railway

### CERTIFICATE

Certified that Mr./Miss RANJANKAR, JAYESH DATTATRAY

Studying B.E./B.TECH/DIPLOMA in MECHANICAL

Engineering in Sem VI of VIVA INSTITUTE OF

TECHNOLOGY has successfully completed Industrial Training

from 26/06/2022 to 25/06/2022 at EMU CARSHED VIRAR, W. R.

Date : 25/6/2022

PRINCIPAL  
ELECTRICAL TRAINING CENTRE  
EMU CARSHED, VIRAR



# Certificate



Awarded to Mr. / Ms. Rutik Ravindra Taval  
of M/s. Platinum Motors  
for participation in the basic Training Course From 01/06/2022  
to 30/06/2022 with satisfactory performance and is authorised to do  
Free services, Paid services, Brakes, Suspension, Steering & Clutch  
overheads on Maruti Vehicles.

**Santosh Panchal**  
TRAINING CO-ORDINATOR

## PLATINUM MOTORS

14, Kanker Industrial Estate,  
Near Pravara Vihar Road - 424001,  
Goregaon - T. N. Road - 400 053  
Email - [platinummotors7@gmail.com](mailto:platinummotors7@gmail.com)

## PLATINUM MOTORS

**Anran Patel**  
WORKSHOP MANAGER

# AQUENE AUTO

BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. Omkar Ravindra Sawant** has successfully completed his internship program with **AQUENE AUTO** his internship tenure was from 5<sup>th</sup> June 2022 to 5<sup>th</sup> July 2022.

Here he acquired knowledge of process of maintain an automobile and was actively and diligently involved in the projects and tasks assigned to him.

He has been a brilliant intern and will be an experienced asset in the field of automobile.

We wish him all success in his future endeavours.

For Aquene Auto,



Vikram Mehta

# AQUENE AUTO

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BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. **Omkar Ravindra Sawant**, a student of TE (Mechanical Engineering- Third Year), Viva Institute Of Technology, Virar has successfully completed a 01 (One) month long internship programme, from 5<sup>th</sup> June, 2022 to 05<sup>th</sup> July, 2022 at this Company.

During the period of his internship programme with us he was found to be enthusiastic and observant. His performance has been assessed as **Good**.

We wish him all success in his future endeavours.

For Aquene Auto,



Vikram Mehta

2<sup>nd</sup> July 2022

## TO WHOM IT MAY CONCERN

This is to certify that **SMIT YOGESH THAKUR** a student of **VIVA INSTITUTE OF TECHNOLOGY** has under gone his internship with **RENAULT SERVICE CENTRE VASAI** from 11-06-22 TO 11-07-22

During the internship he completed various tasks assigned to him by the different department of our organization. We found him sincere, hardworking, and technically sound and result oriented. He worked well as a part of team during his tenure.

We take this opportunity to thank him for his contribution to our organization and wish him all the best for future.



Sameer Shaikh  
(Manager)

### JAYDEN AUTO WHEELS PVT. LTD.

CIN NO. : U50500MH2017PTC293328

**Vasai Sales :** Grishma Garden, Gokhware, Vasai Road (E) Dist - Palghar - 401208. Tel. : 0250 - 6453030 / 9158899345

**Vasai Service :** Near Plotit Centre, Range Office, Vasai (East), Dist & Tal. Palghar - 401208. Tel. 9773338332 / 9773534789 / 9058882861

**Reg. Office : Bolisar Sales & Service :** J/176, MIDC, Bolisar Tarapur Road, Bolisar (W) Dist - Palghar - 401505. Tel. : 9158899308

**Toll Free No :** 1800 121 5050



# OneFit Projects

We Design, We Consult

DATE: JULY 16, 2022

REF NO: A1009

## CERTIFICATE OF INTERNSHIP

To Whomsoever It May Concern

This is to certify that **Mr. Seon Sanju Dias** completed his Engineering Internship at **OneFit Projects**, Mumbai from **16th June 22 to 10th July 2022**.

During the internship, he demonstrated good enthusiasm, a good work ethic, self-motivation, and an attitude to learn new things. He completed all assigned tasks sincerely and maintained effective communication when needed. He successfully completed the project on time.

We wish him all the very best in his future endeavors.

Warm Regards,

**Mr. Shehbaz Ali**  
Chief Engineer  
Onefit Projects



Questions?

Email us at [onefitprojects@gmail.com](mailto:onefitprojects@gmail.com)

or call us at +91 8446300248

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

# AQUENE AUTO

---

BEHIND PIZZA HUT,NARANGI BYPASS ROAD,VIRAR(W)-401305

Date: 05/07/2022

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. **Vedant Ajay Shah** , a student of TE (Mechanical Engineering- Third Year), Viva Institute Of Technology, Virar has successfully completed a 01 (One) month long internship programme, from 5<sup>th</sup> June, 2022 to 05<sup>th</sup> July, 2022 at this Company.

During the period of his internship programme with us he was found to be enthusiastic and observant. His performance has been assessed as **Good**.

We wish him all success in his future endeavours.

For Aquene Auto,

  
Vikram Mehta

# AQUENE AUTO

BEHIND PIZZA HUT, NARANGI BYPASS ROAD, VIRAR(W)-401305

Date: 05/07/2022

## CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. Vedant Ajay Shah** has successfully completed his internship program with **AQUENE AUTO** his internship tenure was from 5<sup>th</sup> June 2022 to 5<sup>th</sup> July 2022.

Here, he acquired knowledge of process of maintain an automobile and was actively and diligently involved in the projects and tasks assigned to him.

He has been a brilliant intern and will be an experienced asset in the field of automobile.

We wish him all success in his future endeavours.

For Aquene Auto,

  
Vikram Mehta

### TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY THAT SHRUTIKA SURESH JUVALE HAS SUCCESSFULLY COMPLETED HER TRAINING WITH TECHNO PRINT INDIA PVT.LTD. HER TRAINING WAS 8<sup>TH</sup> June 2022 TO 22<sup>ND</sup> June 2022. HER WAS WORKING WITH MECHANICAL DEPARTMENT AND WAS ACTIVELY INVOLVED IN THE PROJECTS AND TASKS ASSIGNED TO HER.

DURING THE SPAN OF TRAINING, WE FOUND HER PUNCTUAL AND HARD WORKING PERSON. HER LEARNING POWER ARE GOOD. HER FEEDBACK AND EVALUATION PROVED THAT SHE LEARNED KEENLY.HER INTERPERSONAL AND COMMUNICATOIN SKILL ARE BRILLIANT.

WE WISH HER ALL THE SUCCESS FOR HER FUTURE CAREER.

FOR TECHNO PRINT INDIA PVT.LTD



AUTHORIZED SIGNATORY



पश्चिम रेलवे  
Western Railway

**COACH CARE CENTRE  
BANDRA TERMINUS**  
(ISO 9001:2008 CERTIFIED)

Office of SR, CDO  
Coach Care Center BDTS,  
Western Railway, Mumbai  
Ph 022-26476190

No. BDTS/M442/Project Trg.

Date: - 06/07/2022

### CERTIFICATE OF PROJECT TRAINING

This is to certify that Mr. SHUBHAM SHIRKE design. STUDENT of **VIVA INSTITUTE OF TECHNOLOGY VIRAR** has successfully completed his full time internship -cum- training from 06.06.2022 to 05.07.2022 in our organization.

He has shown keen interest in learning and understanding the Design, Development & Maintenance of Coaches during this period.

We wish him the best for his academic success and professional career ahead.

  
DIVISIONAL MECHANICAL  
ENGINEER (Chg) - BDTS  
Divisional Mechanical Engineer (Chg)  
Western Railway, Bandra Terminus



## PACIFIC TOOLS PVT. LTD.®

Date: 06<sup>th</sup> July 2022

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Siddhesh Dilip Meher**, A Mechanical Engineering Student of VIVA Institute of Technology, Shirgaon, Virar (East) has completed overall internship from our Firm from **09<sup>th</sup> June 2022 to 06<sup>th</sup> July 2022** and was found to be sincere, honest and hardworking.

We wish him all the best for his future endeavour.

Thanks and regards,

For Pacific Tools Pvt. Ltd.

Rakesh Mhade - HR



An ISO 9001:2015 Company

Rajprabha Land Mark Industrial Estate, Building No. 1B, Bhoidapada,  
Satyali Road, Gokhiware, Vasai East, Dist. Palghar - 401208 Maharashtra, India.  
Phone: +91 250 - 2451990 / 2451991  
E-mail: info@pacifictools.in Website: www.pacifictools.in

CIN No. U33112TN2001

TRIMURTI PACKAGING

# CERTIFICATE

THIS CERTIFICATE IS PRESENTED TO

Satyam Singh

For his outstanding completion of the internship program at  
Trimurti packaging from 5 June to 5 July 2022.



AMRESH SINGH  
Manager



### TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY THAT SMITH JOHN HAS SUCCESSFULLY COMPLETED HIS TRAINING WITH **TECHNO PRINT INDIA PVT.LTD** HIS TRAINING WAS FROM June 2022 TO 12<sup>th</sup> June 2022. HE WAS WORKING WITH MECHANICAL DEPARTMENT AND WAS ACTIVELY INVOLVED IN THE PROJECTS AND TASKS ASSIGNED TO HIM. DURING THE SPAN OF TRAINING, WE FOUND HIM PUNCTUAL AND HARD WORKING PERSON. HIS LEARNING POWER ARE GOOD. HIS FEEDBACK AND EVALUATION PROVED THAT HE LEARNED KEENLY HIS INTERPERSONAL AND COMMUNICATION SKILL TO ARE DIFFICULT.

WE WISH HIM ALL THE SUCCESS FOR HIS FUTURE CAREER.

FOR TECHNO PRINT INDIA PVT.LTD



*[Handwritten Signature]*

AUTHORIZED SIGNATORY

TRIMURTI PACKAGING

# *CERTIFICATE*

THIS CERTIFICATE IS PRESENTED TO

## Vedant Thakur

For his outstanding completion of the internship program at  
Trimurti packaging from 5 June to 5 July 2022.



**AMRESH SINGH**

*Manager*

July 16, 2022

## INDUSTRIAL TRAINING COMPLETION CERTIFICATE

This is to certify that Mr. Anil Ramasare Varma, Third Year (Mechanical Engineering) Student of VIVA Institute of Technology Shirgaon, Virar(East) in Maharashtra, has successfully completed his 01 Month In Plant Training from 15-06-2022 to 16-07-2022 At M/S. Agarwal Industries geeta industrial estate, navghar road, vasai east, palghar, thane- 401210, Maharashtra, India.

During his internship we found him hard working cooperative and diligent.

We wish him success in his future endeavors with best wishes.

For Agarwal Industries



Mr. Satish Tiwari  
Plant Head





**SAI SERVICE PRIVATE LIMITED**



Andrales Bhawan, Survey No. # 277(A), Undla Phatak, Station Road, Vasai (West), Dist. Palghar - 401 402  
Tel. : 0250-2312464 / 65 Fax: 0250- 2312460  
CIN : U50210PN1900PTC037095

6<sup>th</sup> August, 2022

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that Mr. Viraj Mahesh Pendurkar has successfully completed Inplant Training from 13<sup>th</sup> June, 2022 to 10<sup>th</sup> July, 2022. During his tenure with our organization he was sincere, honest and hard working.

We wish him every success in his future endeavors.

Sincerely,

Authorised Signatory

## INTERNSHIP CERTIFICATION

This is to certify that

*Vinod Narendra Choudhari*

has successfully completed Machine Learning with Python live projects from Zebo AI in association with Verzeo  
from 01-03-2021 to 30-04-2021.

During the internship, the student was found to be keen and enthusiastic Candidate.

12-06-2021

DATE

UID: 227494835



VICE PRESIDENT - HR



THE SPARKS FOUNDATION  
INSPIRE. INNOVATE. INTEGRATE

## CERTIFICATE OF COMPLETION

*This Certificate is presented to*

*Govind Madhusudan Harayan*

*for an outstanding contribution during the session (Mar 2022 - Apr 2022) of  
Graduate Rotational Internship Program at The Sparks Foundation on 01-Apr-2022.*



Certificate Number: 7Q67G3LTVR

Verification at:

<https://truecertificates.com/verification/>

PRANAV DUBEY

MANAGING DIRECTOR

Outreach & Technology Partner



Sponsored By



# CERTIFICATE

— OF INTERNSHIP —

THIS CERTIFICATE IS PROUDLY PRESENTED TO

*Ashwani Tiwari*

for successful completion of "8 WEEKS FULLSTACK WEB INTERNSHIP"  
by GEOGO TECHSOLUTIONS PRIVATE LIMITED during the period of **Nov, 2021 - Jan, 2022**

A handwritten signature in black ink, appearing to read "Ajai Prabhu", written over a horizontal line.

AJAI PRABHU  
Director, SCOUT LIVE



A handwritten signature in black ink, appearing to read "Avishek Jana", written over a horizontal line.

AVISHEK JANA  
Chief Mentor, GEOGO

Certificate Number: SC65226

Verify on <https://certificates.scoutlive.in/>



THE SPARKS FOUNDATION  
INSPIRE. INNOVATE. INTEGRATE

## CERTIFICATE OF COMPLETION

This Certificate is presented to

*Urval Chikhale*

for an outstanding contribution during the session (Jul 2021 - Aug 2021) of  
Graduate Rotational Internship Program at The Sparks Foundation on 07-Sep-2021.



Certificate Number: A9ZG/BXWSQ

Verification at:

<https://truecertificates.com/verification/>

*Pranav Dubey*

PRANAV DUBEY

MANAGING DIRECTOR



## CERTIFICATE OF INTERNSHIP

Our congratulations to

**Hruchita Jadhav**

### Leads Flick Marketing Internship

In recognition of outstanding contribution made during Leads Flick Program between 28th June, 2021 to 28th July, 2021

*Vishal Singh*

VISHAL SINGH

CEO & Founder,  
Leads Flick



Lf  
Leads Flick

Certificate No:- Vdv2009911663



CERTIFICATE NO. – LREDUCA0A1473  
Date of Issue : 23 August, 2021

GOLD

# CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

*Hruchita Balu Jadhav*

For successfully completing the Golden Level 1 Month Internship from 8 July, 2021 to 8 August, 2021, as a Campus Ambassador at Lyricious- ( Learn with us, Teach with us ) with an exemplary performance. The intern demonstrated good marketing skills and strategy with self-motivated attitude to learn new things and has contributed to the creative ideas, social media marketing strategy, team management and other technical skills.

*Nancy*  
Ms. Nancy  
CO-FOUNDER & CMO



*Nishant Kumar Singh*  
Mr. Nishant Kumar Singh  
FOUNDER & CEO



CERTIFICATE NO. – LREDUCA0A1473  
Date of Issue : 23 August, 2021

GOLD

# CERTIFICATE OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

*Hruchita Balu Jadhav*

For successfully completing the Golden Level 1 Month Internship from 8 July, 2021 to 8 August, 2021, as a Campus Ambassador at Lyricious- (Learn with us, Teach with us) with an exemplary performance. The intern demonstrated good marketing skills and strategy with self-motivated attitude to learn new things and has contributed to the creative ideas, social media marketing strategy, team management and other technical skills.

*Nancy*  
Ms. Nancy  
CO-FOUNDER & CMO



*Nishant Kumar Singh*  
Mr. Nishant Kumar Singh  
FOUNDER & CEO



## INTERNSHIP LETTER

This certificate is being conferred upon **Mr. Aditya Bawa** for successful completion of internship program in **Internet of things, Robotics Technology, Augmented Reality & Embedded Sys** organized by **RoboSync** on 18<sup>th</sup> Aug 2019 to 10<sup>th</sup> Nov 2019.

The student has completed his assignments and projects with brilliance. His responsibilities consisted of Design, Implementation & Verification of all the programs & Applications.

He has performed his assignments in a very excellent manner, which let us offer this Letter of Professional Reference. His energy and passion towards this internship program and learning was commendable and inspiring. He has been a nice intern to work with and showed a pleasant drive to achieve technical and personal goal. He has been trained on latest Emerging Technologies and latest Industry practices

On behalf of our management team, we wish him all the luck in the achievement of coming goals.

Sincerely,

Avinash Shah,  
Director,  
RoboSync  
E: [contact@robosync.in](mailto:contact@robosync.in)

JPMORGAN CHASE & CO.



Inspiring and empowering  
future professionals

# Rahul Nair

## Software Engineering Virtual Experience

Certificate of Completion

October 31st, 2020

Over the period of October 2020, Rahul Nair has completed practical task modules in:

Interface with a stock price data feed  
Use JPMorgan Chase frameworks and tools  
Display data visually for traders

Enrolment Verification Code b9xKSc5FnF3gpf8ko | User Verification Code vMNC9ePQE5mRKxcWh | Issued by Forage

JPMORGAN CHASE & CO.



Inspiring and empowering  
future professionals

# Rahul Nair

## Software Engineering Virtual Experience

Certificate of Completion

October 31st, 2020

Over the period of October 2020, Rahul Nair has completed practical task modules in:

Interface with a stock price data feed  
Use JPMorgan Chase frameworks and  
tools  
Display data visually for traders

Enrolment Verification Code b9xKSc5FnF3gpf8ko | User Verification Code vMNC9ePQE5mRKxcWh | Issued by Forage



## TRAINING OFFER LETTER

18/11/2019  
Mumbai, Maharashtra

Dear Siddhesh Sunil Rane,

We are pleased to offer you offer letter for Internship training camp 2019. This training program will begin on 2<sup>nd</sup> Dec 2019.

The goals and objectives of this training program are **(Skill Development, Gain Experience, Learn & Watch Opportunity, confidence & professional Building)**. This Training will give exposure Emerging Technologies and latest Industry practices.

Sincerely,

Avinash Shah,  
Head -BDE,  
RoboSync  
E: [contact@robosync.in](mailto:contact@robosync.in)



Ref KSI-ML-0506-1707-281

# Certificate of Internship

This is to certify that

**NITIKET SHINDE**

of **VIVA INSTITUTE OF TECHNOLOGY**

Has successfully undergone a summer training & internship of 6 weeks on

**MACHINE LEARNING WITH AI USING PYTHON**

Along with project on

**RESTAURANT REVIEWS**

From **05.06.2020** to **17.07.2020** with Knowledge Solutions India

Date of Issue  
26/7/2020

Authorized Signatory  
Kumar lala



## Certificate of Internship

### TO WHOM IT MAY CONCERN

This is to certify that **Ms. DEVESHREE VIJAY KADU** has completed internship programme on “**Web Developer**” from 28.06.2021 to 27.07.2021.

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

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

**Y Vishnuvardhan**

Chief Director



hr@exposysdata.com  
www.exposysdata.com



September 2, 2021

Mr. **Rahul Tambat**  
Mumbai

**Subject: Internship with GoApptiv**

Dear **Rahul**,

We are pleased to inform that you shall be appointed as **Software Development Trainee** with **GoApptiv Private Limited** from **September 2, 2021 to November 30 2021**.

The location of the internship is **Thane** office.

The stipend per month will be **INR 7,000** per month.

We welcome you and look forward to working with you.

Yours Sincerely,

A handwritten signature in blue ink, appearing to read 'Adwaya', written over a horizontal line.

**Adwaya Sakpal**  
**Head – Human Resources Operations**

**Rahul Tambat**

---

# **Application Design for an app launch on Google PlayStore**



Submitted by :Sharan Dabhi

Date of Submission: 5<sup>th</sup> January 2020.

Submitted to : Fox Domotics Private Limited

Under the Guidance of : Junaid Khateeb (Director, Khateeb Insitute of Technical Education)

# Certificate Of completion

This is to certify that , Mr. Sharan Dabhi has successfully implemented an application designed to study the data and generate insights for an app launch on Google PlayStore.

The Application has been accepted as a completed project as it meets all the requirements specified.

5<sup>th</sup> January 2020



*Sangeeta S. Shah*

(Khateeb Institute of Technical Education)

JPMORGAN CHASE & CO.



Inspiring and empowering  
future professionals

# Simran Thakur

## Software Engineering Virtual Experience

Certificate of Completion

October 31st, 2020

Over the period of October 2020, Simran Thakur has completed practical task modules in:

Interface with a stock price data feed  
Use JPMorgan Chase frameworks and tools  
Display data visually for traders

Enrolment Verification Code 7jFdLsejv2Evqmkmk | User Verification Code pbP7arLjdRzy5cjNF | Issued by Forage



332, Second Floor, Iscon Mall  
150 Ring Road  
Rajkot, Gujarat - 360005  
Mob - +91 9930169164

## INTERNSHIP OFFER LETTER

02/08/2021 11:48:39

**Kamlesh Mali**

A2/12, Darshan apartment, achole road, nallasopara east, nallasopara-401209

Dear Kamlesh,

On behalf of RC Diamonds, I am pleased to extend to you this offer of **web development Internship**. We will begin your internship with the Company on 09/08/2021 and will be expected to work 6 days per week. Your internship is expected to end on 08/11/2021 which you may extend upon request if you want to learn specific things related to the same internship.

During your internship, you may have access to trade secrets and confidential business information belonging to the Company. By accepting this offer of internship, you acknowledge that you must keep all of this information strictly confidential, and refrain from using it for your own purposes or from disclosing it to anyone outside the Company. In addition, you agree that, upon conclusion of your internship, you will immediately return to the Company all of its property, images and documents including electronically stored information. For termination of internship, you need to give a 10-day advance notice to the company.

You will be reporting to myself (Ramchandra Kumble, Founder). You will also be working on our other businesses - **Business coaching Niche, and Digital marketing agency** which is under the brand name of **Youthmonk.com**. This has been added so that you get exposure to both product and service based businesses.

I hope that your association with the Company will be successful and rewarding. Please indicate your acceptance of this offer by signing below and emailing it back. If you have any questions, please do not hesitate to contact me.

Yours faithfully,

**Ramchandra Kumble,**  
**Founder - RC Diamonds,**  
**Rajkot**

I accept an internship with the Company on the terms and conditions set out in this letter.

**Kamlesh Mali**

Name

Signature

Date

Seller Username	Exposysdatalabs
Seller Email Address	yvr120@gmail.com
<b>Purchase Details</b>	
Payment ID	MOJO2224B05Q16445691
Buyer Name	Dishant Prashant Save
Buyer Email Address	dishantsave@gmail.com
Buyer Phone Number	+919370819787
Purchase Date	Feb. 24, 2022
Price	INR. 500.00
Quantity Purchased	1
Total Purchase Amount	INR. 521.24
This charge will appear in your account statement as "Instamojo".	

Powered by





## Certificate of Internship

### TO WHOM IT MAY CONCERN

This is to certify that **Mr. PRATHAMESH SANTOSH NAIK** has completed internship programme on **APP Developer”** from 24.06.2021 to 23.07.2021

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

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

**Y Vishnuvardhan**

Chief Director



hr@exposysdata.com  
www.exposysdata.com



## INTERNSHIP LETTER

This certificate is being conferred upon **Mr. Gauresh Desai** for successful completion of internship program in **Internet of things, Robotics Technology, Augmented Reality, Embedded System** organized by RoboSync on 3<sup>rd</sup> Dec 2019 to 19<sup>th</sup> Dec 2019.

The student has completed his assignments and projects with brilliance. His responsibilities consisted of Design, Implementation & Verification of all the programs & Applications.

He has performed his assignments in a very excellent manner, which let us offer him this Letter of Professional Reference. His energy and passion towards this internship program and learning was commendable and inspiring. He has been a nice intern to work with and showed a pleasant drive to achieve technical and personal goal. He has been trained on latest Emerging Technologies and latest Industry practices.

On behalf of our management team, we wish him all the luck in the achievement of coming goals.

Sincerely,

Avinash Shah,  
Director,  
RoboSync  
E: [contact@robosync.in](mailto:contact@robosync.in)

SILVER

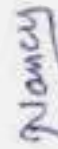
# CERTIFICATE

## OF INTERNSHIP

THIS CERTIFICATE IS AWARDED TO

*Simran Netarsingh Thakur*

For successfully completing the Silver Level 1 Month Internship from 5 May, 2021 to 5 June, 2021, as a **Campus Ambassador** at Lyriclious- ( Learn with us, Teach with us ). The intern demonstrated good marketing skills and strategy with self-motivated attitude to learn new things and has contributed to the creative ideas, social media marketing strategy, team management and other technical skills.

  
.....  
Ms. Nancy  
CO-FOUNDER & CAO



  
.....  
Mr. Nishant Kumar Singh  
FOUNDER & CEO



04 December 2020

**Experience and Recommendation Letter**

Simran Thakur  
Viva Institute Of Technology  
Email - thakursimran862000@gmail.com  
Tel - 9004255788

Dear Simran,

We were delighted & excited to welcome you to WhiteHat Jr. on 17 October 2020 as a Marketing Intern. At WhiteHat Jr., we believe that our team is our biggest strength and we take pride in hiring ONLY the best and the brightest. You played a significant role in the overall success of the assignment. We believe that you had the most enjoyable, learning packed and truly meaningful internship experience with WhiteHat Jr.

We wish you all success as you complete this internship on 17 November 2020.

Congratulations!

Founder & CEO

**WHITEHAT EDUCATION TECHNOLOGY PRIVATE LIMITED**

Registered Office Address: 02B-139, Wing-A, 2nd Floor, WeWork Chromium, Near L&T Flyover, Milind Nagar, JVLR,  
Mumbai- 400072, Maharashtra, India. email: info@whitehatjr.com CIN: U74999MH2018PTC315690



*With PayNav, You'll Trust!*

**15-September-2021**

**Internship Offer Letter**

**Suyash Sagar Koltharkar**

I am pleased to confirm your acceptance of an internship position as Flutter Intern in the PAYNAV - HEMANTIKA TECH SOLUTION Private Limited team. Your first day of the 3-month Internship as started on 3rd September 2021.

This offer is contingent upon completion of the 3-month Internship with the team. At the end of the successful completion, you will be rewarded with the Internship Certificate, It's a paid internship with a 5000 Inr/month stipend, along with the learnings that you will go through. Outstanding performance will also attract a PPO (Pre Placement Offer) and we look forward to your work exceeding our expectations.

We are very pleased to have you in our team. We look forward to seeing you and offer a very warm welcome.

Sincerely,

Rahul S Sundar  
Co-Founder and VP Operations  
PayNav

**Supported By**



WWW.PAYNAV.CO  
HEMANTIKA TECH SOLUTION PVT LTD  
AMRITA TBI, KASAVANAHALLI, CARMELARAM, BENGALURU,  
KARNATAKA 560035

**Incubated By**





04 December 2020

**Experience and Recommendation Letter**

Divya Karwande  
Viva Institute Of Technology, Mumbai University  
Email - divyakarwande@gmail.com  
Tel - 8975288734

Dear Divya,

We were delighted & excited to welcome you to WhiteHat Jr. on 17 October 2020 as a Marketing Intern. At WhiteHat Jr., we believe that our team is our biggest strength and we take pride in hiring ONLY the best and the brightest. You played a significant role in the overall success of the assignment. We believe that you had the most enjoyable, learning packed and truly meaningful internship experience with WhiteHat Jr.

We wish you all success as you complete this internship on 17 November 2020.

Congratulations!

Founder & CEO

**WHITEHAT EDUCATION TECHNOLOGY PRIVATE LIMITED**

Registered Office Address: 02B-139, Wing-A, 2nd Floor, WeWork Chromium, Near L&T Flyover, Milind Nagar, JVL R,  
Mumbai- 400072, Maharashtra, India. email: info@whitehatjr.com CIN: U74999MH2018PTC315690

**DATE: 27 JUNE 2022**

### **Internship Completion Letter**

This is to certify that **Ms. Farhana Abdullah**, a student of VIVA Institute of Technology, Virar, Maharashtra, has undergone internship and training in our organization **Tzar Digital Agency**, Andheri, Western Mumbai as a **Web Developer Intern**.

**The internship/training period was from February 14, 2022 to June 27, 2022.**

During the training, we found her to be proactive, innovative, intelligent and enthusiastic about her assignments and learning new skills.

We appreciate her way of taking challenges and multi-dimensional approach. We wish her best luck for her bright future.

**From Tzar Digital Agency Pvt. Ltd.**



**Mr. Aatir Siddiqui**  
**Founder & Head-Operations**



Ref. No.- MTIS-001-26112019...

Date - 28-06-2022.....

**TO WHOM-SO-EVER IT MAY CONCERN**

We are glad to inform you that **Mr. Sachin Ramsakal Bhagat** from **VIVA INSTITUTE OF TECHNOLOGY, Virar** is currently working on project/internship at Marcks Training and IT Services from 28-02-2022 from Till date

In the course of this internship, he is working as a **"Flutter Developer"** on the society management system project for residential societies.

We found him extremely inquisitive and hard working. He was very much interested to learn new technologies and get in to the depth of the subject.

We wish him all the best and success in his life.

FOR MARCKS TRAINING AND  
IT SERVICES LLP

*Kavita Mandilwar*  
PARTNER

Sincerely,

Kavita Mandilwar  
Director  
Marcks Training & IT Services



Dinesh Devkar &lt;d.devkar386@gmail.com&gt;

---

## Welcome to Swabhav Techlabs, Dinesh!

---

**Aditi Talsania** <aditi@swabhavtechlabs.com>  
To: d.devkar386@gmail.com

Fri, Dec 10, 2021 at 5:20 PM

Hi Dinesh,

Thank you for exploring career opportunities with Swabhav Techlabs Pvt Ltd.

**Congratulations! You have successfully completed our initial selection process and we are pleased to make you an offer for the role of Software Developer (Job level: Trainee)**

**Please find 2 offers based on your profile and performance in the selection process.** Here are the details of the position you have been selected for:

### OFFER 1:

**Company:** [Swabhav Techlabs](#)

**Position:** Software Developer - Trainee

**Location:** Andheri, Mumbai

**Technology:** Java | Dotnet | Golang

**Package (CTC):** 3.5 LPA

Please note the following process that would be followed after the acceptance of the offer:

1. Offer Letter and Bond signing, (2 years bond, amount: Rs 100,000. Cheque of INR 1 lakh to be provided)
2. Submission of personal documents in the next 7days after acceptance.

3. Training on the following:

Tech Stack: Java, OOAD, Design Patterns Hibernate, Struts, Spring, C#,DesignPatterns,Javascript,JQuery,Angularjs, Angular, Asp.net MVC, Entity Framework, ADO.net, WebAPI, SQLServer, NHibernate

Tools: Git, visualstudio, postman, vscode, fiddler, SqlProfiler

Project after training: Customer Banking Management System.

4. A probationary period of 3 months after you begin to start working at the company's location to monitor your performance. (During the probationary period, the stipend of INR 16000 (in hand) will be provided)

### OFFER 2:

**Company:** [Monocept](#)

**Position:** Software Developer - Trainee

**Location:** Lower Parel, Mumbai

**Technology:** Java

**Package (CTC):** 4.31 LPA

If you wish to go ahead with this opportunity:

Register and apply for the hackathon here: <https://assessment.hackerearth.com/challenges/hiring/monocept-trainee-software-engineer-hiring-challenge/>

(Hackathon Deadline: 12th Dec)

Please note the following process that would be followed after the acceptance of the offer:

1. Offer Letter and Bond signing (2 years bond, amount: Rs 100,000)
2. Submission of personal documents in the next 7days after acceptance.

3. Training on the following:

Tech Stack: Java, OOAD, Design Patterns Hibernate, Springboot, DesignPatterns,Javascript,JQuery,Angularjs,

Angular,WebAPI,SQLServer, Hibernate  
Tools:Git,visualstudio,postman,vscode,fiddler,SqlProfiler  
Project after training: Customer Banking Management System.

**Kindly confirm your acceptance of this offer by replying to this email by tomorrow night. If not accepted in 7 days**, it will be construed that you are not interested in this employment and this offer will be automatically withdrawn.

Do let me know if you wish to know anything more.  
My contact details: 91 9930527293  
We look forward to welcoming you as part of our Techlabs Family :)

Regards,  
Aditi T, Business Associate  
Swabhav Techlabs | [www.swabhavtechlabs.com](http://www.swabhavtechlabs.com)  
M: +91 9930527293



To whomsoever it may concern

This is to certify that **Aditi Dilip Kudu**, of **VIVA SCHOOL OF MCA, Virar** has completed his project titled "**Intensive Module**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 08<sup>th</sup> February, 2022 to the present time.

The project was well done and met the management requirement both in concept and content.

For Cirrius Technologies Pvt. Ltd.

A handwritten signature in blue ink, appearing to read "D. Kudu", is written over a horizontal line.

Authorized Signatory



**Private & Confidential**

March 01, 2022

**Name Rahul Mestry**  
**Address Vasai , Maharashtra**

Dear Rahul,

Sub: Contract of employment

We are pleased to extend to you this offer of temporary employment as an Intern in the ProgIST Solutions LLP. If you accept this offer, you will begin your internship with the company on January 15, 2022

**Your place of posting will be Mumbai.**

Your Monthly Total Pay for the Internship will be Rs. 12,000/- (Rupees Twelve Thousand only). As a Intern you will receive "temporary employment" status. As a temporary employee, you will not receive any of the employee benefits that regular company employees receive including holidays.

Your internship is expected to end on June 30, 2022. However, your internship with the company is "at-will" which means that the company may terminate your internship at any time, with or without cause and with or without notice.

On successful completion of your Internship period, based on your performance you shall be given an offer confirming you as a regular employee of the Company.

As an Intern of the Company, you are requested to go through the HR Policy and Procedure Manual or any amendment therein carefully to fully understand these provisions and its implication on your association with the Company.

We look forward to a long and mutually beneficial relationship with you.

Yours faithfully,  
For ProgIST Solutions LLP,



Manisha B. Bhansali

Initial of Employee\_\_\_\_\_



Web Development & Mobile app Development

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This is to certify that **Kaushik Yatin More** of VIVA Institute of Technology, Virar has completed project titled “**TaskBoard**” satisfactorily as a part of the Project of the award of Degree of Master in Computer Application (M.C.A) from 24<sup>th</sup> January to 30<sup>th</sup> May, 2022)

The project was well done and met the management requirement both in concept and content.



---

272,Raj World ,Ugat Canal Rd,Sant Crystal Avenue, Jahangirabad, Planpur, Surat,Gujarat 395009



Dear Saurabh R Pandey,

We are pleased to offer you an internship at our company in the web development department at our A9 Business Consultancy Services Pvt. Ltd Office . Your internship shall commence on 14/3/2022 and shall end after 6 months .

The terms and conditions of your internship with the Company are set forth below:

1. Subject to your acceptance of the terms and conditions contained herein, your project and responsibilities during the Term will be determined by the supervisor assigned to you for the duration of the internship.
2. You are eligible for a stipend of 7k during the Term which shall be paid on completion of the tasks assigned to you during your internship to the satisfaction of the Company.
3. Your timings will be from 9.30 AM to 6.30 PM, Monday to Friday. Please be sure to bring Required Document documents with you on your first day to complete your profile.
4. You will sign a confidentiality agreement with the company before you commence your internship.
5. The internship cannot be construed as an employment or an offer of employment with A9 Business Consultancy Services Pvt. Ltd.

Please confirm your acceptance of the terms of this offer by [16 /3 /2022] failing which, we have the right to cancel the internship. We look forward to having you on our team! If you have any questions, please feel free to reach out to us.

Sincerely,  
Vinod Singh,  
8454877551,  
A9 Business Consultancy Services Pvt. Ltd.



## Quick Live Solutions

Telephone: +911204122888, +91962530080

Email: [support@quicklivesolutions.com](mailto:support@quicklivesolutions.com)

Website: [www.quicklivesolutions.com](http://www.quicklivesolutions.com)

### PROJECT COMPLETION LETTER QLS-0026

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To: Payal Santosh Pawar

Email:

[payal.s.pawar@gmail.com](mailto:payal.s.pawar@gmail.com)

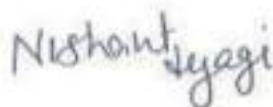

Phone no:

8655190281

Dear Mr. /Ms.

This is to certify that **PAYAL SANTOSH PAWAR**, Of **VIVA INSTITUTE OF TECHNOLOGY, Virar** has completed her project titled "**RBCE PORTAL**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 1<sup>st</sup> Feb 2022 to 10th June 2022

The project was well done and met the management requirement both in concept and content.

Sincerely,  Nishant Kumar C.E.O.	Sincerely,  Monika Vasudev Sr. HR head
--	---



708 / 709, Bhaweshar Arcade NX,  
Opp Shreyash Cinema,  
LBS Marg, Chhatkopar (W)  
Mumbai - 400 088  
Tel - 022 42975100

## **Experience Certificate**

### **Talent Corner Hr Services Pvt Ltd**

19/05/2022

**Subject : Experience Certificate**

**This Certificate is presented to Apurva Pednekar**

**For the experience gained in our organization. As the (department name) in Talent Corner Hr Services Pvt Ltd .I hereby testify the employee has worked in our company from 29/01/2022 to 29/04/2022 and has gained experience in the field.**

**It was Great pleasure working with Apurva Pednekar for the employment duration and proved as one of the most important asset of the organization.**

**We wish you a good life and better opportunity of employee.**

*Bankim Doshi*

**Bankim Doshi**

*Apurva Pednekar*

**Apurva Pednekar**

**Regd. Office :** 702, Adinath Tower, Sudha Park, Shanil Sudha Path, Chhatkopar (W), Mumbai - 400 077.  
**Email :** bankim@talentcorner.in **Website :** www.talentcorner.in **CIN :** U74910MH2007PTC170340

**MICROFILT INDIA PRIVATE LIMITED**

Plot No. 247/2, G.I.D.C.  
Umbergaon 388 171, Dist. Valsad.  
Tel.: 0260 - 2561362 / 3  
E-mail : [innovations@microfilitindia.com](mailto:innovations@microfilitindia.com)  
Web : <http://www.microfilitindia.com>  
CIN No.: U74140MH100497C078445



**MICROFILT**

An ISO 9001 : 2008 Company

**To whomsoever it may concern**

*This is to certify that **Harshada Shantilal Prajapati** , Of **VIVA SCHOOL OF MCA, Virar** has completed her project titled "**IMMS – ERP Solution**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 16 November, 2021 to present time.*

*The project was well done and met the management requirement both in concept and content.*



...we solve



**Authorized Signatory**



## **Smartlytics Innovations Pvt Ltd.**

*A division of the Lotus Group of Companies, USA*

Tallam Altius, No. 24-25, 27<sup>th</sup> Cross, Industrial Layout,  
Banashankari 2<sup>nd</sup> Stage, Bangalore - 560070

**To Mr. Rishabh Rai,**

**Mumbai**

### **LETTER OF OFFER**

**Dear Rishabh,**

**Congratulations!!**

On behalf of VoloForce LLC, we are pleased to offer you an Employment with us, based on the interview discussions you had with our Management Team. Details of the terms and conditions of offer are as under:

1. You will be designated as **Angular Developer**.
2. Your date of commencement of Employment will be on **11<sup>th</sup> March 2022**.
3. You will be entitled to receive Fixed CTC of Rs. 4,00,000/- (Rs. Four Lakhs Only) per **annum**.
4. Your employment would be subject to the Terms & Conditions, mentioned in your appointment letter, which will be issued to you on your joining.

Please bring along the below listed documents / details on your day of joining.

- a) Copy of Original Academic Certificates (all from 10<sup>th</sup> to Highest)
- b) Original Resignation Letter with acknowledgement
- c) Relieving letter from previous employer (Original)
- d) One passport size photographs (Recent)
- e) Copy of Pan Card and Aadhar Card.

Kindly scanned and send us a signed copy of this letter as a token of your acceptance of this offer. Looking forward to a long and mutually beneficial career with us.

**Paul Zsebedics**  
**Director**

**Accepted by Managing**  
**Rishabh Rai**



**Date: 18<sup>th</sup> February 2022**

**Sub: Offer Letter**

**Dear Neel Rathod,**

**Congratulations!**

We are pleased to offer you an employment with **Tekno Point Multimedia India Pvt. Ltd.** based on the interview discussions you had with us, and your application was submitted to us. Details for terms and conditions of the offer are as mentioned below:

You will be designated as **Trainee Developer (Front End)** and will be based at our Mumbai office, date of commencement of Employment will be w.e.f. **1<sup>st</sup> March 2022**. Your employment would be subject to the Terms & Conditions mentioned in your appointment letter. You will be on probation period of **Six months** from the date of joining.

**Offered CTC: 1.80 L PA**

**CTC post successful probation period – 2.40 L PA (On the basis of your performance)**

**You should login on 1<sup>st</sup> March 2022 by 10:30 AM (Office Time: 10:30 AM - 7:30 PM)**

We hope that your association with the Company will be successful and rewarding. Please indicate your acceptance of this offer by signing below and returning it to us. If you have any questions, please do not hesitate to contact us.

Once again, congratulations, and we look forward to working with you.

Thanking You,  
Devyani Motghare  
(HR Manager)

Date of Acceptance:

Sign:



Employee Name	Neel Rathod	
Designation	Trainee Developer (Front End)	
Effective From	01-03-22	
Salary Break-up		
Fixed Elements	Per Month (Rupees)	Per Annum (Rupees)
Basic Salary	7,500	90,000
HRA	3,000	36,000
Conveyance Allowance	1,250	15,000
Medical Reimbursement	1,250	15,000
Education Allowance		-00
Special Allowance	304	3,648
Total Gross (A)	13,304	1,59,648
Employer Contribution		
Provident Fund	1,596	19,152
ESI	100	1,200
Total Contribution (B)	1,696	20,352
CTC (A+B) Fixed	15,000	1,80,000

This payment is made to you as dictated by the Indian Act Authorities and is subject to change if the Indian Tax law changes.

Date of Acceptance:

Sign:

Date: 01<sup>st</sup> April 2022

To,  
Akansha Tamore  
Type-C, 56/02, B.A.R.C. Colony,  
Tarapur, Boisar,  
Palghar 401 502

**Subject: Internship with Diligence Web Technologies**

Dear Akansha,

On behalf of Diligence Web Technologies, it is our pleasure to confirm your internship. You will be working with Diligence as an Intern for Web Applications Developer

Your duties and assignments during internship will be as follows

- Undergo trainings provided
- Work on demo project/ tasks to gain acquainted with the platforms used
- Work on internship project – provided by Diligence
- Understand live project architecture
- Support new developments/maintenance/ testing

Your internship duration will be of six months starting from 1st April 2022. You will be given a maximum stipend of Rs. 4000, which shall be determined based on your performance and attendance. During internship you won't be entitled for any leaves. You will have to abide with general rules of conduct as per company's policy.

We congratulate you on your appointment and wish you a long and successful career with us. We are confident that your contribution will take us further in our journey towards becoming a growing company. We assure you our support for your professional development and growth.

Yours Truly,  
For Diligence Web Technologies



**Office:** A/12, Jai Ish Krupa, Anand Nagar, Vasai (W), 401 202  
[www.diligencewebtechnologies.co.in](http://www.diligencewebtechnologies.co.in)

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To whomsoever it may concern

This is to certify that *Himanshu Ravindra Kumar Tiwari, Of VIVA SCHOOL OF MCA, Virar* has completed his project titled "*Advance Digital Signage(ADS)*" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 14<sup>th</sup> March 2022 to till now.

*The project was well done and met the management requirement both in concept and content.*



Authorized Signatory

November 17, 2021

To,  
**Arjun Ramshakal Vishwakarma,**

Subject: Offer for Internship and job as Trainee Software Developer

**Dear Arjun,**

We are very pleased with your interview and we would like to offer you the post of Trainee Software Developer in our company. This would also include training for a period of 6 months. Your stipend would be Rs.5000 per month during your training period.

After your training, you will be eligible for the post of Junior Software developer, if you perform well during your training period. The CTC will be determined at the end of your training period. Your CTC will be between Rs.3.5 lakhs to Rs.4.5 lakhs based on your performance during the training period.

The details of the engagement will be elaborated in a formal appointment letter that is issued on your date of joining our organization.

We are excited to have you in our organization and look forward to a mutually rewarding and enriching association.

As agreed during our discussions your joining date shall be in **January 2022**.

Regards,

Vaishali Patel  
HR Head  
Systemics Solutions

(Accepted & Approved)



Sign: .....

Date: 02/12/2021

Systemics Solutions  
Unit 18, 1st Floor, The Affaires, Plot No - 9, Sector - 17, Sanpada,  
Navi Mumbai - 400705, India. Tele: +91-22-27810808. Email: info@systemics.com

Phone : +91-22-4076 1000  
Fax : +91-22-2416 1726  
www.skinternational.com



S. K. HOUSE, 94-A, ANVIL BAUG, D.S.P. ROAD, DADAR (E), MUMBAI - 400 014



### Sub: Appointment Letter

1<sup>st</sup> October 2019

To  
Mr. Sandeep Vishwakarma  
Bholenath welfare society,  
Road no. 3, Kranti nagar,  
Lokhandwala, Kandivali (E),  
Mumbai- 400101

Dear Sandeep,

With reference to your application and your subsequent interview, we are happy to inform that you have been appointed as a **"Trainee- Software Developer"** with the following terms & conditions.

1. You will initial be posted in Mumbai. However, during your employment with the company, you will be liable to work at any of the Offices/ Divisions / Departments of the company and at our client's place, whether in the same town or any other town/city anywhere in India without any change in the terms and conditions of the employment, according to the exigencies of business. Your posting will be at the sole discretion of the management.
2. Your salary has been fixed at Rs. 15,000/- per month. In addition to the salary you will be eligible for reimbursement of traveling expenses, Group Mediclaim Policy (GMC) of 2 lacs and Group Personal Accident Policy (GPA) of 3 lacs and all other benefits shall be as per the policies of the company formed from time to time.
3. You shall be on probation for a period of 6 months. Upon satisfactory completion of probation, you will be confirmed in the regular cadre of the company provided your satisfactory work and conduct. After completion of the probation period, till such time that you are intimated in writing regarding your confirmation you shall continue to be on probation. The probation period is extendable at the sole discretion of the management by another 6 months.

# DIMA ENGINEERING PVT LTD

30/108 Laxmi Ind. Estates, Link Road, Andheri (W), Mumbai 400053, +91 7021377390,  
info@dimaengineering.com

Dear Abhishek Upadhyay, Congratulations!

We are pleased to inform you that you have been selected by DIMA Engineering Pvt Ltd to join us as Junior QA Engineer following the technical tests and subsequent interview held on 13<sup>th</sup> may 2022. Your joining date will be 16<sup>th</sup> may 2022.

You will be inducted as a Junior QA Engineer and will be evaluated for a period of 1 month. During this period, you will be evaluated on your technical, analytical and interpersonal skills.

You will be paid a consolidated salary of Rs. **15,000/-** (Rs. Fifteen thousand only) per month.

Upon successful completion of the training period and a positive evaluation, if considered by DIMA Engineering Pvt Ltd, you may join us full time.

Your offer has been made based on information furnished by you. However if there is a discrepancy in the copies of documents or certificates given by you as a proof of above we retain the right to review our offer of employment.

Employment as per this offer is subject to your being medically fit.

We congratulate you on your appointment and wish you a long and successful career with DIMA Engineering Pvt Ltd. We are confident that your contribution will take us further in our journey towards becoming world leaders.

Welcome Aboard!

Regards,  
DIMA Engineering Pvt Ltd

**Date : 27th June 2022**

**To whomsoever it may concern**

This is to certify that **Aditya Shreeprakash Patel**, of **VIVA SCHOOL OF MCA, Virar** has completed his project titled "**Real Time Market (RTM)**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 15<sup>th</sup> January 2022 till 20<sup>th</sup> June 2022.

The project was well done and met the management requirement both in concept and content.

**For Indian Energy Exchange Limited**



**Manish Prajapati**

**Assistant Vice President: Exchange Technology**



**June 24<sup>th</sup>, 2022**

## **TO WHOMSOEVER IT MAT CONCERN**

This is to certify that **Mr. Akshay Patil**, of VIVA Institute of Technology, Virar is working as a Software Developer Intern pursuing his internship project at **Unix Softech Pvt. Ltd.**

He is working on the project titled **Jay Logistics** under the guidance of **Ms. Namrata Kamble (Project Lead)** during the period from 14<sup>th</sup> March 2022 to till date.

His performance is productive and satisfactory, we wish him all the best for the upcoming future endeavours.

**From Unix Softech Pvt. Ltd.**

**Ms. Namrata Kamble**  
**Project Lead**



**TECH USTAADS**

70 38 39 37 37

info@techustaads.com

www.techustaads.com

**TO WHOMSOEVER IT MAY CONCERN**

**Date: 22/06/2022**

This is to certify that **Arti Shukla, MCA**, student of **VIVA Institute Of Technology** Of M.C.A, is working as an intern with **TechUstaads** during the period **10/01/2022 To Present**.

During the period, She handled **Software Tester Position**.

During the course of Internship, **Arti Shukla** has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, her coordination skills and communication are par excellence and her attention to detail is impressive.

We wish her all the very best for her future.

Yours Sincerely,

Mr. Denzel Fernandes  
Head-TechUstaads



Weblord Infotech & Education Pvt. Ltd.

Office No - 27 2nd Floor DM Plaza, opp S T Depot, Nalasopara (W), Maharashtra 401203

Mob: 7203303579 Email: info@weblordinfotech.com Web: www.weblordinfotech.com

*(To whomsoever it may concern)*

*This is to certify that **ASHISH A. TIWARI**, Of **VIVA SCHOOL OF MCA**, Virar has completed his project titled "**Real estate Management System**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 1<sup>st</sup> April to till date.*

*The project was well done and met the management requirement both in concept and content.*

  
*Authorized Signatory*

Registered Office: A 304 Avadh Palace, Nilemore, Near Rajiv Gandhi School, Maharashtra Pin: 401203



**Date:- 27<sup>th</sup> JUNE, 2022**

To whomsoever it may concern

This is to certify that Chetan Prajapati, Of VIVA INSTITUTE OF MCA, Virar has completed her/his project titled "Oracle FLEXCUBE Core Banking" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 27th December 2021 to till date The project was well done and met the management requirement both in concept and content.

**For Clover Infotech Pvt. Ltd.**

A handwritten signature in blue ink, appearing to read "Elizabeth Paul", written over a horizontal line.

Elizabeth Paul

**Senior Vice President – Human Resources**



## Offer Cost Sheet - Cirrius Technologies Pvt. Ltd.

1 message

Nitin Kamble <nitin.kamble@cirrius.com>

Thu, Jan 20, 2022 at 4:32 PM

To: sankhehitashri98@gmail.com <sankhehitashri98@gmail.com>

Cc: Sapna Rajbhar <sapna.rajbhar@cirrius.com>

Dear Hitashri,

Further to our discussion, we are pleased to offer you the position of **"Jr. Product Executive"**.

Please find below the offer cost sheet. You are requested to revert with your acceptance of this offer & the date of joining no later than close of business hours on **20<sup>th</sup> January 2022** failing which this offer stands null and void.

We look forward to welcome you at Cirrius for a long and rewarding association. Your date of joining would be **24<sup>th</sup> January 2022**.

### Offer Note:

This Offer is valid provided we get a favorable background investigation and reference check clearance.

Detailed Salary Break Up		
Salary Components	Amount (Rs.)	
	Monthly	Annually
Basic	6,389	76,671
House Rent Allowance	3,195	38,336
Standard Allowance	4,167	50,000
LTA	532	6,389
Professional Development	676	8,113
Special Allowance	1,014	12,169
<b>Gross Salary (A)</b>	<b>15,973</b>	<b>191,678</b>
Provident Fund Employer contribution	1,534	18,408
Gratuity*	307	3,686
ESIC	519	6,228
<b>Benefits (B)</b>	<b>2,360</b>	<b>28,322</b>

<b>Cost to the Company (CTC) [A+B]</b>	<b>18.333</b>	<b>2.20.000</b>

\* TDS will be deducted as per income earned and as per savings plan declared by you for the financial year along with proof of payments/receipts wherever applicable.

\* Gratuity will be calculated on behalf of 15 days basic salary and will be payable as per Gratuity Act.

\* Reimbursements are subject to submission of bills.

\* LTA will be non-taxable based on receipts/proof submitted.

\* Contribution towards ESIC is 3.25% by employer & 0.75% by employee as per the ESIC ACT 1948 if the employees gross salary is within the gross salary limit as specified by ESI Act.

**Background Verification Form (Attached) & Candidate Information Form (Attached): Kindly fill the same and send across latest by 20<sup>th</sup> January 2022.**

**Kindly share the softcopy of all the below mentioned documents to [sapna.rajbhar@cirrius.com](mailto:sapna.rajbhar@cirrius.com) :**

- 1) Appointment letter & Relieving letter of all past organizations.
- 2) Last three months' Salary Slips.
- 3) All your mark sheets and professional certificates if any.  
(SSC./HSC./Graduation (All Sem)/Post Graduation (All Sem))
- 4) Passport size photographs- jpeg file (White Background).
- 5) Birth, Photo & Address identity proof.
- 6) Pan Card and Aadhar Card.
- 7) One cancelled cheque.

**If you have bank account in ICICI, kindly provide the account details.**

**Regards,**



**Nitin Kamble**

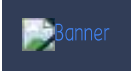
**Sr. Manager – HR & Admin**

Cirrius Technologies Pvt. Ltd.

Cirrius Centre | A-19 | MIDC Area | Cross Road B |

Andheri (E) | Mumbai 400 093

Telephone: +91 22 4095 6060 Cell: +91 9819566754



## Cirrus Technologies Pvt Ltd

**Board Line:** +91 22 4095 6060 +91 22 6272 6060

**Find us:** [Website](#) | [Facebook](#) | [Twitter](#) | [LinkedIn](#) | [YouTube](#)

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To,

Ashwin Sreedhar,

Mumbai,

Date: 8<sup>th</sup> June 2022

**SUBJECT: INTERNSHIP LETTER**

We are glad to inform you that **Mr. Ashwin Sreedhar** has successfully completed his **Six Months** Internship from **22<sup>nd</sup> November 2021 to 22<sup>nd</sup> May 2022** with us as a Solution Analyst.

We found him extremely inquisitive and hard working. He was very much interested to learn and execute various software programming-related tasks allocated to him.

His association with us was very fruitful and we wish him all the best in his future endeavors.

**From Sankey Business Solutions Pvt. Ltd.**

A handwritten signature in blue ink that reads 'Sandeep R Patil'.

**Sandeep Patil**

**Director**

To,

Pooja Gupta

Mumbai,

Date: 25<sup>th</sup> June 2022

**SUBJECT: INTERNSHIP LETTER**

We are glad to inform you that **Ms. Pooja Gupta** has successfully completed his **Six Months** Internship from **21<sup>st</sup> November 2021 to 21<sup>st</sup> May 2022** with us as a Solution Analyst.

We found her extremely inquisitive and hard working. She was very much interested to learn and execute various software programming-related tasks allocated to him.

Her association with us was very fruitful and we wish her all the best in the future endeavors.

**From Sankey Business Solutions Pvt. Ltd.**

A handwritten signature in blue ink that reads 'Sandeep R Patil'.

**Sandeep Patil**

**Director**

To,

Sonali Mishra

Mumbai,

Date: 25<sup>th</sup> June 2022

**SUBJECT: INTERNSHIP LETTER**

We are glad to inform you that **Ms. Sonali Mishra** has successfully completed his **Six Months** Internship from **08<sup>th</sup> December 2021 to 08<sup>th</sup> June 2022** with us as a Solution Analyst.

We found her extremely inquisitive and hard working. She was very much interested to learn and execute various software programming-related tasks allocated to him.

Her association with us was very fruitful and we wish her all the best in the future endeavors.

**From Sankey Business Solutions Pvt. Ltd.**

A handwritten signature in blue ink that reads 'Sandeep R Patil'.

**Sandeep Patil**

**Director**

10<sup>th</sup> June 2022

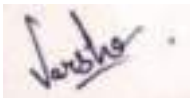
**To Whom It May Concern**

This letter is to certify that **Mr. Abdulbaqui Abdulrashid Ansari** has successfully completed his internship with Rapid Innovation. His internship tenure was from **27<sup>th</sup> Jan 2022 to 24<sup>th</sup> May 2022**. He was working with us Trainee Blockchain Developer and was actively & diligently involved in the projects and tasks assigned to him.

During the span, we found him punctual and hardworking person.

We wish him a bright future.

Sincerely,



Varsha Singh Raghav

HR Department

*To whomsoever it may concern*

*This is to certify that Arun Muralidharan Nair, Of VIVA SCHOOL OF MCA, Virar has completed his project titled "Advance Digital Signage(ADS)" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 14<sup>th</sup> March 2022 to till now.*

*The project was well done and met the management requirement both in concept and content.*



Authorized Signatory



**To whomsoever it may concern**

This is to certify that **JHA ROHIT MUKUND**, of **VIVA SCHOOL OF MCA, Virar** has completed his project titled “**Phyzii Pharma CRM**” satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 24<sup>th</sup> January, 2022 to the present time.

The project was well done and met the management requirement both in concept and content.

For Cirrius Technologies Pvt. Ltd.

A handwritten signature in blue ink, appearing to read "D. Kulkarni", is written over a light blue rectangular background.

Authorized Signatory

**Cirrius Technologies P. Ltd.**

Cirrius Centre, A-19, MIDC Area Cross Road B, Andheri (East), Mumbai- 400093, India  
www.cirrius.com CIN: U72900MH2007PTC171018



Sept 01, 2022

To whomsoever it may concern

This is to certify that Swapnil Sanjay Gadekar, Of VIVA SCHOOL OF MCA, Virar has completed his project titled “Doctor’s Consent Auto Emailer” satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from February 01, 2022 till date

The project was well done and met the management requirement both in concept and content.

For Cirrius Technologies Pvt. Ltd.

A handwritten signature in blue ink, appearing to read "Swapnil", is written over a light blue rectangular background.

Authorized Signatory



## A Film Making Company

Date: 21st January 2021

To,  
Ms. Rikita Mukul Sheth,

**Subject: Appointment Letter to join as a Digital Marketing Intern**

Referring to your interview held over on 20<sup>th</sup> January 2021 for the above position. Further, the management has decided to offer you a full-time Digital Marketing Internship with our organization from 21<sup>st</sup> January 2021.

You will have to undergo multiple roles during this internship tenure and you will have to prove your presence valuable to the organization. In return, we will make sure you learn the practicality of the industry with some hands-on experience.

**Scope of work:**

1. Website Designing
2. Make a Website SEO Friendly
3. Get involved in Social Media Marketing for the Agency
4. Content Writing for the Website
5. Creating, Visualising and Executing Digital Marketing Task

**We expect -**

1. Sincere behaviour
2. Self-Starter
3. Ambitious
4. Creative
5. Punctual
6. Organised

Please bring and submit the following documents at the time of joining:

1. Address Proof Xerox (Aadhar card)
2. 1 Photograph
3. ID card of your current class/college

There will be certain rules and regulations once you join the office.

On the successful completion of the internship, you will be given an experience certificate and you will also be paid a monthly stipend of Rs. 5000.

We are happy to welcome you and congratulate you on your appointment and wish you a long and successful career with us.

Thank you,

**Vikas Samant**

Founder Partner

Creative Garage

*V. Samant*  
21/01/22

**For CREATIVE GARAGE**

**PARTNER**

**6<sup>th</sup> June 2022**  
CS/EL/JJ/06062022

Ms. Jahanvi Joshi

**To Whomsoever It May Concern**

Jahanvi Joshi (**5364**) has successfully completed her internship program with Coditas Solutions LLP. from **17<sup>th</sup> January 2022** to **31<sup>st</sup> May 2022** as an Associate Software Engineer.

We wish her all the success in her future endeavors.

Sincerely,

For Coditas Solutions LLP.

PAWAN  
PRALHAD  
DASGAON  
KAR

Digitally signed  
by PAWAN  
PRALHAD  
DASGAONKAR  
Date: 2022.06.10  
14:48:16 +05'30'

Authorized Signatory

Date : July 05,2022

**TO WHOM IT MAY CONCERN**

This is to certify that ROHIT UTTAM DESAI, Of VIVA institute of technology Shirgaon, Virar(East) is completing his project titled “StoreInsta” satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 25th March 2022 to 25th September 2022.)

He is working on the project, so far the project is well done and met the management requirement both in concept and content.

I hereby certify his overall work satisfactory to the best of my knowledge.

Sincerely,



**Srinivas Guni**  
**Director**  
**App Octet Technologies Pvt Ltd**

MInSysT Consulting Private Limited  
SH: 12-14, Meghdoot tower,  
Behind St. Thomas Church,  
Saibaba Nagar, Mira road-East,  
Thane - 401107, MH - India.  
CIN: U72900MH2010PTC208262

Ref: MInSysT/HR/20220626  
June 26 , 2022.

**To whomsoever it may concern**

*This is to certify that **Jain Unnati Ganesh**, Of **VIVA SCHOOL OF MCA**, **Virar** has completed her/his project titled **Multiple Action Page Project** satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 25 Dec 2021 to 26 June 2022*

*The project was well done and met the management requirement both in concept and content.*

For MInSysT Consulting Private Ltd



Authorized Signatory

June 30, 2022

**TO WHOMSOEVER IT MAY CONCERN**

This is to confirm that **Ms. Shelo Chakkalakkal Paulachan** has successfully completed her internship at e-Emphasys Systems Pvt. Ltd. Her internship period was from **January 10, 2022 to April 30, 2022**.

For any more information, please get in touch with the HR.

Yours Sincerely,  
For **e-Emphasys Systems Pvt. Ltd,**



**Authorized Signatory**

Phone : +91-22-4076 1000  
Fax : +91-22-2416 1725  
www.skinternational.com



B. K. HOUSE, 94-A, APJAL BALU, D.S.P. ROAD, GADAR (2), MUMBAI - 400 014



3<sup>rd</sup> Jan 2021

To  
Mrs. Priyanka Nalawade  
14/C, 1st Mahadi Road,  
Marvelpada Goan,  
Marvelpada road vhar(East)  
401305

#### Confirmation Letter

Dear Priyanka,

The management is pleased to inform you that your services as **"Trainee- Software Developer"** being confirmed from **1<sup>st</sup> April 2020** and you will be eligible for the following perks in accordance with the rules of the company:

1. You will be entitled to Bonus, Leaves and other facilities, if any in accordance with and subject to company's rules and regulations currently in operation or which may be enforce in future.
2. All the terms in the appointment letter will prevail.
3. Records and information that fall within your knowledge during the employment in the company will be maintained by you with absolute secrecy and shall not be divulged to anybody without the prior consent or sanction of the company. Breach of this will entitle to company to your immediate dismissal at such further action as the company may deem fit.
4. During the course of your employment with the company, you will not engage or be concerned with any business or profession other than that of the company. Breach of the condition on your part will entitle company to terminate your employment with immediate effect not withstanding any other terms mentioned in the appointment letter.
5. In accordance with the standard practice, we request you to treat the terms of your employment as confirmation.

I take this opportunity of conveying to you my best wishes for the future.

Please signify your acceptance on the duplicate copy of this letter as a token of your agreement to the above terms and conditions.

For SK International

  
Authorized Signatory

  
(Priyanka Nalawade)

# DIMA ENGINEERING PVT LTD

30/108 Laxmi Ind. Estates, Link Road, Andheri (W), Mumbai 400053, 022-26365544,  
info@dimaengineering.com

**To WHOMSOEVER IT MAY CONCERN**

Date : 29/06/2022

This is to certify that Manas Nitin Sawant, MCA student of VIVA Institute of Technology is working as a permanent employee with DIMA Engineering from 21/03/2022 till date.

Manas Nitin Sawant has shown great amount of responsibility, sincerity and willingness to learn and zeal to take on new assignments & challenges.

In case of any queries, please feel free to contact at [careers@dimaengineering.com](mailto:careers@dimaengineering.com)

Regards,  
Dima Engineering Pvt Ltd



Authorized Signatory



**TECH USTAADS**

70 38 39 37 37

info@techustaads.com

www.techustaads.com

**TO WHOMSOEVER IT MAY CONCERN**

**Date: 22/06/2022**

This is to certify that **Jay Anil Chamare, MCA, student of VIVA Institute Of Technology** Of M.C.A, is working as an intern with **TechUstaads** during the period **10/01/2022 To Present.**

During the period, He handled **Software Tester Position.**

During the course of Internship, **Jay Anil Chamare** has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, his coordination skills and communication are par excellence and his attention to detail is impressive.

We wish him all the very best for her future.

Yours Sincerely,

Mr. Denzel Fernandes  
Head-TechUstaads



Email: [Info@roiyatech.com](mailto:Info@roiyatech.com)

**Date: 18<sup>th</sup> February, 2022**

**Name: Jilesh Mourya**

**Designation: Associate software developer (Intern)**

**Subject: Offer Letter (Intern)**

**Dear Jilesh,**

We are pleased to offer you an internship at our company. Your internship shall commence on **20<sup>th</sup> February, 2022** and shall end on 30<sup>th</sup> July, 2022 (Term) the terms and Conditions of your internship with the Company are set forth below:

- Subject to your acceptance of the terms and conditions contained herein, your project and responsibilities during the Term will be determined by the supervisor assigned to you for the duration of the internship.
- You are eligible for a stipend of **15,000/-** during the Term, which shall be paid on 4<sup>th</sup> of every month during your internship.
- Office timings will be from **9:00 AM to 6:30 PM**, Monday to Saturday. Please be sure to bring your documents with you on your first day to complete your verification.
- You will sign a confidentiality agreement with the company before you commence your internship.
- The internship cannot be construed as an employment or an offer of employment with RoiyaTech.

Please confirm your acceptance of the terms of this offer. We look forward to having you on our team! If you have any questions, please feel free to reach out to us.

Yours Sincerely.

RoiyaTech.

A handwritten signature in black ink, appearing to read 'Roshan', is written over a faint, light blue circular stamp.

Roshan.

**Juhi Chaudhari**

**To whomsoever it may concern**

This is to certify that Juhi Chaudhari (Emp. ID: AK1309044) has been associated as an intern with our company AKIRHS Software Solutions Pvt Ltd from Jan 12, 2022 – Till date.

Juhi has been a hardworking, honest and dedicated employee.

This is an employment feedback letter and cannot be used for any other engagement

Yours Sincerely,

For AKIRHS Software Solutions Pvt. Ltd.



Radhika Gupta  
HR GENERALIST



**STARZ Ventures**  
AUTOMATE your complete BUSINESS

**June 29th, 2022**

**TO WHOMSOEVER IT MAT CONCERN**

This is to certify that **Mr. Kamalesh Dinesh Yadav**, of VIVA Institute of Technology, Virar is working as a **Software Developer - Intern** pursuing his internship project at STARZ Ventures Pvt. Ltd.

He is working on the project titled **"Job Board"** under the guidance of Mr. Manish Goud (Project Head) during the period from **7<sup>th</sup> February 2022 to 27<sup>th</sup> June 2022**.

His performance is productive and satisfactory, we wish him all the best for the upcoming future endeavours.

Best Regards,

*Manish Goud*

Mr. Manish Goud  
(Project Head)

**STARZ Ventures**

91 Springboard, Techno Park 74/II, 'C' Cross Road, Opp. Gate No 2, M.I.D.C, Seepz,  
Andheri East, Mumbai, India, Maharashtra



**TECH USTAADS**

70 38 39 37 37

info@techustaads.com

www.techustaads.com

**TO WHOMSOEVER IT MAY CONCERN**

**Date: 22/06/2022**

This is to certify that **Komal Phoolchandra Gautam, MCA**, student of **VIVA Institute Of Technology** Of M.C.A, is working as an intern with **TechUstaads** during the period **10/01/2022 To Present**.

During the period, She handled **Software Tester Position**.

During the course of Internship, **Komal Phoolchandra Gautam** has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, her coordination skills and communication are par excellence and her attention to detail is impressive.

We wish her all the very best for her future.

Yours Sincerely,

Mr. Denzel Fernandes  
Head-TechUstaads

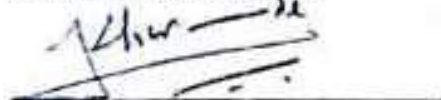
Date: 29/06/2022

To,  
Mr. Manish Pandey  
Viva Institute of Technology, Virar

**Sub- Continuation of Employment in ICRUXSYSTEM Private Limited**

This is to certify that Mr. Manish Salil Pandey, student of Viva Institute of Technology, Virar has been employed in IcruxSystem Private Limited since 14th February 2022 till date as a Associate Software Developer position. Currently he is working on Android project Inventory Issues for Work Order under the guidance of Mr. Prasad Vasaikar, and Company willing to continue his employment.

Yours Truly  
For ICRUXSYSTEM Pvt. Ltd.

  
Tushar Kherde  
Authorized Signatory



This is to certify that **Nagendra Parmatma Mahato**, of **VIVA Institute of Technology MCA, Virar** has completed his project titled "**Fitomatic App**" satisfactorily as a part of the Project of the award of Degree of Master in Computer Application (M.C.A) from 18<sup>th</sup> April to the present time.

The project was well done and met the management requirement both in concept and content.

For PayPer Software

A handwritten signature in black ink, appearing to read "Ashish", is written over a light blue rectangular background.

Authorized Signature



**TECH USTAADS**

70 38 39 37 37

info@techustaads.com

www.techustaads.com

**TO WHOMSOEVER IT MAY CONCERN**

**Date: 22/06/2022**

This is to certify that **Namrata Sambhaji Redekar , MCA**, student of **VIVA Institute Of Technology** Of M.C.A, is working as an intern with **TechUstaads** during the period **10/01/2022 To Present.**

During the period, She handled **Software Tester Position.**

During the course of Internship, **Namrata Sambhaji Redekar** has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, her coordination skills and communication are par excellence and her attention to detail is impressive.

We wish her all the very best for her future.

Yours Sincerely,

Mr. Denzel Fernandes  
Head-TechUstaads

10<sup>th</sup> February 2022

**Henil Kundan Dandekar**

Offer No: 2022-02004

Sub: Job Offer for the Post of “**Associate Software Developer**”

Dear **Henil**,

On behalf of **ICRUXSYSTEM**, I am pleased to confirm our offer of employment to you as **Associate Software Developer** based in **Mumbai/ Navi Mumbai**.

We extend this offer, and the opportunity it represents, with great confidence in your abilities. You have made a very favourable impression with everyone you met and we are excited with the prospect of you joining our Company on **February 16<sup>th</sup> 2022** or a date as mutually agreed.

Your immediate manager will communicate details of your role and work responsibilities in the initial weeks of your joining the Company.

Your annual CTC of Rs. **3,00,000/-**, payable monthly, and will be subject to statutory and other deductions as per Company policies and practices. The details of your compensation breakdown are provided in the attached **Annexure A**.

You may also receive additional benefits as are generally accorded to the employees of the Company, subject to the applicable policies and practices of the Company.

Your employment with us will be governed by our Terms and Conditions as detailed in **Annexure B**. We would like you to join the Company on **February 16<sup>th</sup> 2022**. At the time of joining, it is mandatory for you to submit the documents mentioned below.

This offer letter, together with the **Annexures** described herein, and the **SERVICE COMMITMENT BOND** (which you are required to sign), constitutes the entire agreement between the parties with respect to the subject matter of this offer and supersedes all other previous or contemporaneous oral or written representations, understandings or agreements relating to the subject matter of this offer between you and the Company or its affiliates.

As a token of your acceptance of our offer and the terms of this letter, please sign in the space provided below indicating your acceptance of our offer.

We look forward to you joining our team and be the valuable member of the ICRUXSYSTEM Team.

Sincerely,

**For ICRUXSYSTEM Pvt. Ltd.**



**Authorized Signatory**  
Shreya Agnihotri  
HR- Executive

### Acceptance

I hereby accept the position and terms and conditions of employment offered. The following documents have been attached for your records or shall be provided to the Company on \_\_\_\_\_.

- Passport Copy
- Copy of Educational Certificates
- Service / Relieving letter from existing employer
- Last drawn Payslip
- PAN Number
- Form 16 from existing employer
- Your three colour passport photographs

I will join the Company on \_\_\_\_\_.

**Agreed & Accepted**

Signature with Date \_\_\_\_\_

Name: **Henil Kundan Dandekar**



**SOFTPRO**

**SOLUTIONS**

www.softprosolutionsindia.in

*Just Solutions*

Date: 26/11/2021

**INTERNSHIP OFFER LETTER**

Dear Shephali,

With reference to your application and subsequent discussion/interview, we are pleased to offer you the position of **"Web Developer intern."** For this position, your major duties will include programming. You are expected to join in **December 2021**.

It will be six months of Internship starting from your date of joining. After the internship tenure, we will judge your performance and accordingly will provide feedback & further confirmation for a full-time job. After your internship period, a bond of one year has to be signed by you on your confirmation as a full-time employee. Congratulations and welcome to the team!

Please bring the following documents at the time of joining:

- Marksheets and Certificates (10th onwards till your last degree)
- Address & Photo ID proof (Aadhaar card/ pan card/Passport)
- Passport Size Photos- 2

We are confident that you will be able to make a significant contribution to the success of our Company. Please sign and share the scanned copy of this letter and return it to the HR Department to indicate your acceptance of this offer.

Sincerely,

**Authorized Person**

Nitesh Patil,

*I accept the above offer and will begin on 01/12/2021*



Signature

/ 27/11/21

Date



Date: 20<sup>th</sup> June, 2022

**To whomsoever it may concern**

This is to certify that **Omkar Sunil Raut**, student of **VIVA Institute of Technology, Virar(E)** has completed her project titled **"Standard 834 Reports"** satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from January 3<sup>rd</sup>, 2022 to till date.

The project was well done and met the management requirement both in concept and content.

Sincerely,

DocuSigned by:  
A handwritten signature in black ink that reads "Smita Pandit".  
804D8A483D01400...

6/20/2022 | 3:54 AM CDT

Smita Pandit,  
HR (India),  
iTEDIUM Inc.  
Email : [smita@itedium.com](mailto:smita@itedium.com)

## OFFICES

Tampa, FL USA  
New York, NY USA  
London, UK  
Mumbai, India

550 N. Reo Street  
Suite 300  
Tampa, 33609

To whomsoever it may concern

This is to certify that **Pankaj Mahendra Vishwakarma**, Of **VIVA SCHOOL OF MCA, Virar** has completed her/his project titled "**Task Management System**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 27th December 2021 to till date

The project was well done and met the management requirement both in concept and content.



Randy Melder,

Chief Technology Officer,

VoloForce, LLC



**STARZ Ventures**  
AUTOMATE your complete BUSINESS

**June 29th, 2022**

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **Mr. Priyanshu Suryadeo Yadav**, of VIVA Institute of Technology, Virar is working as a **Software Developer - Intern** pursuing his internship project at STARZ Ventures Pvt. Ltd.

He is working on the project titled **"One Click Shopping"** under the guidance of Mr. Gopal Krishna M. (Technical Manager) during the period from **15<sup>th</sup> February 2022 to 29<sup>th</sup> June 2022**.

His performance is productive and satisfactory, we wish him all the best for the upcoming future endeavours.

Best Regards,

*Gopal Krishna M.*

Mr. Gopal Krishna M.  
(Technical Manager)

**STARZ Ventures**

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Vaibhav Sanjay Apraj** of **VIVA SCHOOL OF MCA, Virar** has completed his project titled “**Compliance 360**” satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 10th February 2022 to 31st May 2022.

The project was well done and met the management requirement both in concept and content.

**For Nimap Infotech LLP**



**Authorized Signatory**

## INTERNSHIP LETTER

We are glad to inform you that Mr. Rahul Dalvi has successfully pursuing his internship from 08th March 2022 to till date with us as a Software Developer.

During his internship he is working on the project **Mobile API** under the guidance of **Mr. Sushil Kulkarni (Project Head)** during **this period**.

We found him extremely inquisitive and hard working. He is very much interested to learn and execute various software programming-related tasks allocated to him.

His association with us was very fruitful and we wish him all the best in the future endeavours.

From GRIP TECHNOLOGIES PVT. LTD.



Mr. Sushil Kulkarni  
Project Head



**TECH USTAADS**

70 38 39 37 37

info@techustaads.com

www.techustaads.com

**TO WHOMSOEVER IT MAY CONCERN**

**Date: 22/06/2022**

This is to certify that **Roshani H Bhosure, MCA**, student of **VIVA Institute Of Technology** Of M.C.A, is working as an intern with **TechUstaads** during the period **10/01/2022 To Present**.

During the period, She handled **Software Tester Position**.

During the course of Internship, **Roshani H Bhosure** has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, her coordination skills and communication are par excellence and her attention to detail is impressive.

We wish her all the very best for her future.

Yours Sincerely,

Mr. Denzel Fernandes  
Head-TechUstaads



**TECH USTAADS**

70 38 39 37 37

info@techustaads.com

www.techustaads.com

**TO WHOMSOEVER IT MAY CONCERN**

**Date: 22/06/2022**

This is to certify that **Sanjog Prakash Pawar, MCA**, student of **VIVA Institute Of Technology** Of M.C.A, is working as an intern with **TechUstaads** during the period **10/01/2022 To Present**.

During the period, He handled **Software Tester Position**.

During the course of Internship, **Sanjog Prakash Pawar** has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, his coordination skills and communication are par excellence and his attention to detail is impressive.

We wish him all the very best for her future.

Yours Sincerely,

Mr. Denzel Fernandes  
Head-TechUstaads

Date:- 27<sup>th</sup> June, 2022

**To whomsoever it may concern**

This is to certify that **Sheetal Chhotelal Gupta**, Of **VIVA INSTITUTE of Technology, Virar** has completed her project titled "**Great Sales**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 1<sup>st</sup> February, 2022 to till date.

The project was well done and met the management requirement both in concept and content.

Regards,

**For Cosmic Web Solution**

Managing head of company  
Cosmic Web Solution

**Address**

Address: 05/11 Wing, Hare Apt,  
Opp. Pipla Bazar, Near Dargah Market,  
Kandivali (E), Vihar Road, East  
(near 20th bus stop)

**Phone**

9764281201  
95545007341

**Email**

cosmicwebsolution@gmail.com

**website**

www.cosmicwebsolution.com

## OFFICES

Tampa, FL USA  
New York, NY USA  
London, UK  
Mumbai, India

550 N. Reo Street  
Suite 300  
Tampa, 33609

To whomsoever it may concern

This is to certify that **Shivam Shambhunath Chaurasiya**, Of **VIVA SCHOOL OF MCA, Virar** has completed her/his project titled "**Task Management System**" satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 3<sup>rd</sup> January 2022 to till date

The project was well done and met the management requirement both in concept and content.



Randy Meider,  
Chief Technology Officer,  
VoloForce, LLC

*This is to certify that **Sminal Kishor Patil**, Of **VIVA SCHOOL OF MCA, Virar** has completed her project titled “**tafi.nguage.co.in**” satisfactorily as a part of the Project Training of the award of Degree of Master in Computer Application (M.C.A) from 17<sup>th</sup> JAN to 24<sup>th</sup> May, 2022*

*The project was well done and met the management requirement both in concept and content.*

Sincerely,



**Nilay Jani**

Director

Authorized Signatory

**Prometheus Solutions Pvt. Ltd**

108 Bhaveshwar Arcade, LBS Road, Opp Shreyas Cinema, Ghatkopar (W), Mumbai 400086  
+91-9833116604 | [www.pssinfo.com](http://www.pssinfo.com) | [info@pssinfo.com](mailto:info@pssinfo.com)



**TECH USTAADS**

70 38 39 37 37

info@techustaads.com

www.techustaads.com

**TO WHOMSOEVER IT MAY CONCERN**

**Date: 22/06/2022**

This is to certify that **Sunny Vishwakarma, MCA**, student of **VIVA Institute Of Technology** Of M.C.A, is working as an intern with **TechUstaads** during the period **10/01/2022 To Present**.

During the period, He handled **Software Tester Position**.

During the course of Internship, **Sunny Vishwakarma** has shown great amount of responsibility, sincerity and a genuine willingness to learn and zeal to take on new assignments & challenges. In particular, his coordination skills and communication are par excellence and his attention to detail is impressive.

We wish him all the very best for her future.

Yours Sincerely,

Mr. Denzel Fernandes  
Head-TechUstaads

# ABS COMPUTER'S

---

(ERP SOFTWARE AS PER YOUR REQUIREMENT)

Date: 24<sup>th</sup> June 2022

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that, Miss. Tejal Suresh Marie, of MCA (Master of Computer Application, Semester IV); VIVA School of MCA; Virar is working with ABS COMPUTER'S for her internship from 24<sup>th</sup> April 2022 to till date.

During her tenure she worked as Assistant DEVELOPER for her project titled "Project Online" to check whether the project is profitable. Along with Project Online, accounting, textile, garment which is used to submit the project quotations under the guidance of Mrs. Anuradha Save. She has successfully completed the project to the desired expectations.

During the period of her internship program with us she was found punctual, hardworking and inquisitive.

We wish her every success in her future career.

Thanking You,

For Abs Computer

For ABS COMPUTERS

  
Manager/Proprietor

# V2STech Solutions Pvt. Ltd.

Technology Consulting and Integration Specialist

Date: 22<sup>nd</sup> June 2022

To Whom It May Concern

This letter is to certify that Uday Futak has successfully completed training/ probation. During probation period, Uday Futak has worked on our Virtual Exhibition Platform project form 11-1-2022 to 23-5-2022.

As per our employment offer dated 11-1-2022, after thorough assessment of performance, we have confirmed Uday Futak as fulltime employee of V2STech Solutions Pvt Ltd.

Congratulation !!

**For V2STech Solutions Private Limited**



Sushant Sawant

Co-Founder

V2STech Solutions Pvt. Ltd.

*501, 9 Mansi, Ram maruti road, Cross lane 1, Thane (W) Pin – 400 602,*

*Email: [info@v2stech.com](mailto:info@v2stech.com)*

*Website: [www.v2stech.com](http://www.v2stech.com)*

*CIN: U74999MH2013PTC250490*

## INTERNSHIP CERTIFICATE

This is to certify that **Mr. Mihir Solanki** has completed his internship with **ABACUS EDUCARE Pvt Ltd.** as a Trainee Engineer in Embedded System Designing from 6<sup>th</sup> June 2022 to 15<sup>th</sup> July 2022.

During the course of internship, he was given training and guidance that helped him gain:

1. Hands-on training on Embedded Firmware Designing
2. Conceptual understanding on basics of electronics, programming techniques and networking.
3. Understanding of application areas and working principals of various true industrial grade products used in healthcare, poultry, process plants and data centres.

During the tenure of the internship, he was found to be punctual, hardworking and Inquisitive.

We wish him well for his future endeavours.

for **ABACUS EDUCARE Pvt. Ltd.**

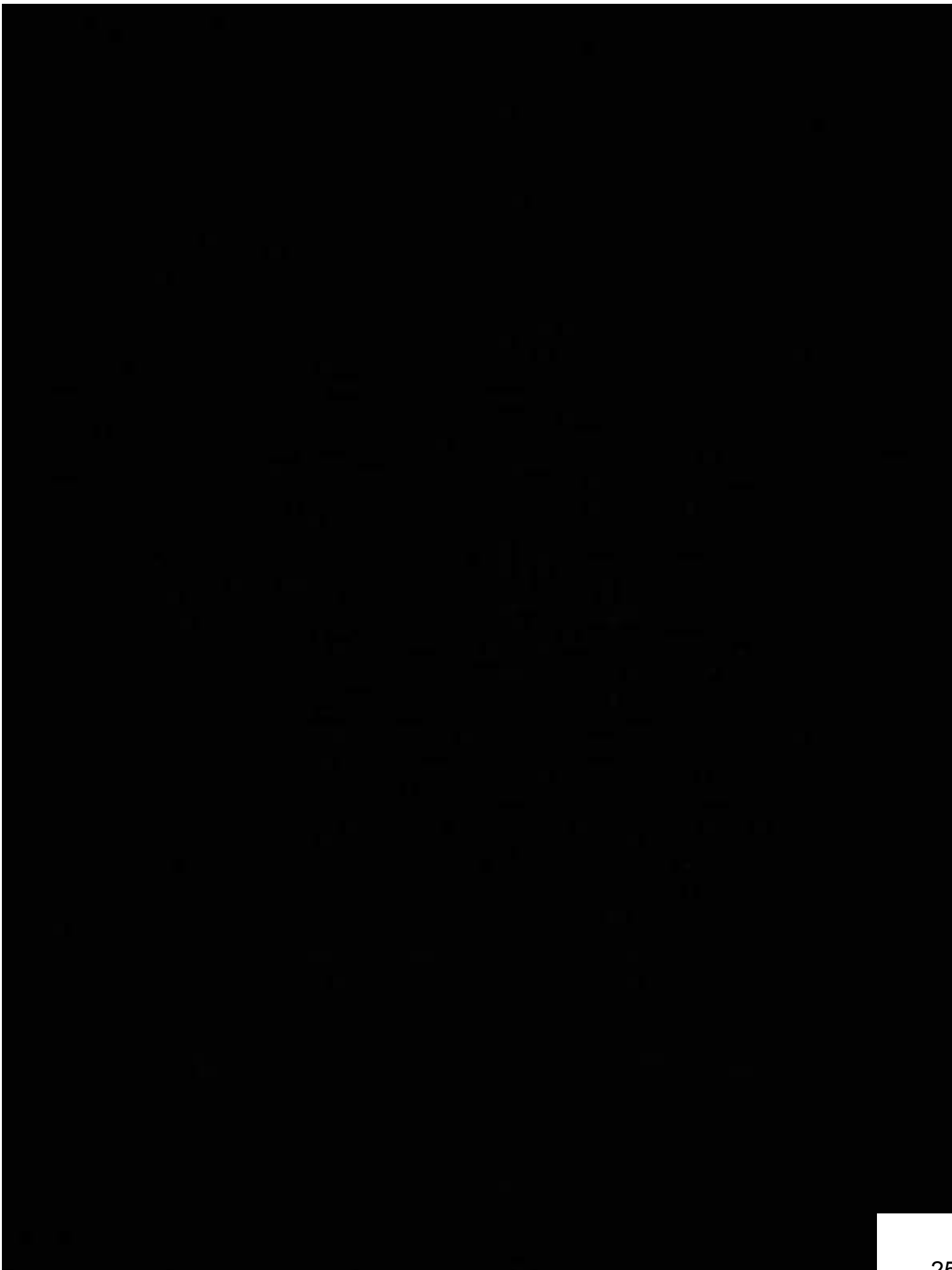


J R Kumar,

Technical Director

15<sup>th</sup> July, 2022





## **CERTIFICATE OF TRAINING TO WHOM IT MAY CONCERN**

This is to certify that **Mr. Sachin Umashankar Tiwari**, student of **VIVA INSTITUTE OF TECHNOLOGY (Virar East)**, has successfully completed his Internship training at **GRAVITY TECHNO** under the guidance of **Mr. KETAN SHAH (Proprietor)** during the period

1. 20<sup>th</sup> December 2021 to 8<sup>th</sup> February 2022
2. March 12, 19, 26 and April 9 (total 4 days)
3. 3<sup>rd</sup> June 2022 to 9<sup>th</sup> July 2022

We found him to be sincere, hardworking & competitive. He put a lot of efforts in testing and calibration of the products. We wish him very best in his future career.

**FOR GRAVITY TECHNO**

A circular purple ink stamp with the text 'GRAVITY TECHNO' around the perimeter. Inside the stamp is a handwritten signature in black ink that appears to read 'Ketan Shah'. Below the stamp, the name '(KETAN SHAH)' is printed in black capital letters.  
**(KETAN SHAH)**



TECHNICAL CODING RESEARCH  
INNOVATION  
NAVI MUMBAI

Abdulkadir Sadriwala  
viva institute of technology  
abdulkadirsadriwala259@gmail.com

Dear Abdulkadir Sadriwala,

We are delighted to welcome you to **TCR INNOVATION** for **Frontend Web Development Internship Program**. We are confident that you would play a significant role in the overall success of the venture and wish you the most enjoyable and truly meaningful internship program experience.

Your internship program's specifications:

**Program:** Frontend Web Development

**Start Date:** 10th July, 2022

**Period Of Internship:** 2 Months



If you have any questions or concerns, write us an email at [abdulkadirsadriwala259@gmail.com](mailto:abdulkadirsadriwala259@gmail.com)



## INTERNSHIP CERTIFICATE

This is to certify that **Ms. Zhil Vora** has completed her internship with **ABACUS EDUCARE Pvt Ltd.** as a Trainee Engineer in Embedded System Designing from 6<sup>th</sup> June 2022 to 15<sup>th</sup> July 2022.

During the course of internship, she was given training and guidance that helped her gain:

1. Hands-on training on Embedded Firmware Designing
2. Conceptual understanding on basics of electronics, programming techniques and networking.
3. Understanding of application areas and working principals of various true industrial grade products used in healthcare, poultry, process plants and data centres.

During the tenure of the internship, she was found to be punctual, hardworking and inquisitive.

We wish her well for her future endeavours.

for **ABACUS EDUCARE Pvt. Ltd.**



J R Kumar,

Technical Director

15<sup>th</sup> July, 2022



**ABACUS EDUCARE Pvt. Ltd.**

101, Diamond Industrial Estate, Navghar, Vasai Road (E), Dist. Palghar, Maharashtra, India - 401210.  
Cont.No.: 7385255574 info@abacuseducare.com www.abacuseducare.com



# CERTIFICATE OF RECOGNITION

We are happy to award this certificate to

**Siddhesh**

Who served as Campus Ambassador Intern of the Entrepreneurship Cell, IIT Bombay for the year 2021-22. Your contribution towards encouraging and promoting entrepreneurship is highly appreciated.

**Viren Inaniyan**  
Overall Coordinator  
E-Cell

**Prateek Jajodia**  
Overall Coordinator  
E-Cell





**VAPCON**

## VAPCON MANUFACTURING ENGINEERS

*The Professionals in :*  
**VENTILATION & AIR POLLUTION CONTROL**

OFFICE : L/3, LAXMI INDUSTRIAL ESTATE, NEW LINK ROAD, OFF. J.P. ROAD, ANDHERI (W), MUMBAI - 400 053.  
TEL : 6692 0304 - 6692 0305 - 6692 0306 / 2636 5033 • FAX : 91-22-2636 1253  
E-mail : sales@vapcon.com / admin@vapcon.com • Website : www.vapcon.com

WORKS : HISA NO 4, SURVEY NO. 441, PART 4 & 5, MAHIM, PALGHAR - (WEST), DIST. PALGHAR, PIN-401 404.

KINDLY REPLY TO OUR OFFICE ADDRESS ONLY



VME/P-Exp.Cert

September 14,2020

**Mr. Shubham Ganesh Patil**

Saphale,Kandrebhure,tembhikhodave(West),  
Tal-Palghar,Dist.- Palghar,401102.

Dear Sir,

This is to certify that **Mr. Shubham Ganesh Patil** student of Government Polytechnic ,  
Mumbai has successfully completed Internship Training for gathering knowledge and  
guidance in Production and Q.C. Departments in our organization for a period of 6 month  
from **09-12-2019 to 09-06-2020**.

During Internship period, we found him sincere, hardworking and result oriented. He  
worked well as a part of Team during his tenure. We take this opportunity to wish all the  
best for his future assignments

Thanking you,

Your faithfully,

For VAPCON MANUFACTURING ENGINEERS,

**L.M.GHANSHANI**  
PROPRIETOR

Date: 05-03-2022

**To Whom It May Concern**

This letter is to certify that Ms. Payal Prakash Pujari has successfully completed her internship program of one year with Rich Floraaz Pvt Ltd. Her internship tenure was from 1<sup>st</sup> Jan 2021 to 31<sup>st</sup> Dec 2021.

During the span, we found her punctual and hardworking person. Her learning powers are good and she picks up swiftly. Her feedback and evaluation proved that she learned keenly. Moreover, her interpersonal and communication skills are brilliant.

We wish her a bright future.

Sincerely,



Yatin J. Mokal,

Rich Floraaz Pvt Ltd





B1, Nav-Sahajeevan, 59 SHIV-SRUSHTI, Kurla East  
Mumbai - 400 024 (INDIA)  
yatin.mokal@gmail.com

Payal Prakash Pujari  
B/305, prime C H S Ltd,  
Virat Nagar, Mayekar Wadi,  
Virar (West), Palghar,  
Maharashtra-401303.

**Sub: - Offer For the Internship**

Dear Payal,

We refer to your mail along with resume as well as subsequent interview. We are pleased to offer you internship for the period of 1 Jan 2022 to 31<sup>st</sup> December 2022. We will provide you Rs. 11800/- Per Month Salary & Rs. 3000/- per month conveyance and mobile Expenses.

Kindly acknowledge the same.

RegTex Associate

A handwritten signature in blue ink, appearing to read "Yatin J. Mokal", with a long horizontal line extending to the right.



( Yatin J. Mokal)  
Director



☎ (F) : 02525 - 271272

# SAVITA TRANSFORMERS PVT. LTD.

**Manufacture & Repairs of :  
Distribution Transformers, Furnace Transformers & CT / PT Units**

**FACTORY : PLOT No. G-53, M.I.D.C. TARAPUR, BOISAR, DIST. THANE - 401 506.**

CIN: NO. U33100MH1990PTC056616, e mail ID : savittransformer@gmail.com, Contact No. 08806400111

Date: 05.01.2022

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Hitesh Dinesh Gharat, (Aadhaar No. 739283401037) a student of Electrical Engineering, sem VII, Viva Institute of Technology, Virar (E), Maharashtra. Has successfully completed (From 30<sup>th</sup> December, 2021 to 05<sup>th</sup> January, 2022) internship programmer at this Company. During the period of his internship programmer with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For SAVITA TRANSFORMERS PVT. LTD.

Authorised



# *The Brihan Mumbai Electric Supply & Transport Undertaking*

(OF THE BRIHAN MUMBAI MAHANAGARPALIKA)

TRAINING & INDUSTRIAL ENGINEERING DEPARTMENT

TELEPHONE : (022) 22856282

FAX : (022) 22851244

TELEX : 1185755 BEST IN

TELEGRAM : BEST, MUMBAI-400 001

Mazda Bhavan, Best Marg, Post Box No. 192,

Mumbai Central, Mumbai - 400 001.

Tel. No. 022-23077670, 23007690

BEST BHAVAN,

BEST MARG,

POST BOX NO. 192,

MUMBAI - 400 001.

TELEPHONE : (022) 22856282

FAX : (022) 22851244

TELEX : 1185755 BEST IN

TELEGRAM : BEST, MUMBAI-400 001.

ADDRESS ALL COMMUNICATION BY TITLE  
NOT BY NAME

TIE/Est-36/ 16 /2022

OUR REF.

DATE : 4 JAN 2022

## TO WHOMSOEVER IT MAY CONCERN.

This is to certify that **Ms. Aditi Suryakant Gijble** had undergone "Inplant Training" from 16.12.2021 to 01.01.2022 in Operation & Maintenance, Distribution Workshop, Street Lighting (Maintenance) and Material Testing & Standards Departments of Electric Supply Branch of the B.E.S.&T. Undertaking.

Her conduct during the training period was found to be **"Good"**.



Divisional Engineer  
Training & Industrial  
Engineering Department

*"BEST Travel Saves Fuel"*

☀ THE HIND ELECTRIC & ENGINEERING CORPORATION ☀

Fulare Solar Limited, Energy Training Center, Wagholi, Nallasopara (West)

Contact - +91 86002 09612; E-mail - [hindelectricvirar@gmail.com](mailto:hindelectricvirar@gmail.com)

---

Date:- 20/12/2021

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Suyash Manohar Gosavi** a student of Viva Institute Of Technology, Virar (East) has completed his Internship Training at **The Hind Electric & Engineering Corporation**.

The duration of Internship was from 13<sup>th</sup> Dec, 2021 to 20<sup>th</sup> Dec, 2021.

During the Training Period his conduct was good.



The Hind Electric & Engr. Corp.



# SHAKTI

## METAL WORKS

MFGS. & SUPPLIERS OF  
SPARES FOR FIRE FIGHTING EQUIPMENT AND  
ENGINEERING GOODS.

Workshop Add:- B/5, Sagar Sangam Industrial Estate, Sativali Naka, Vasai (E), Palghar - 401208.

Office Add:- 6, Damodar wadi, Ashok Nagar, Kandivali (E), Mumbai - 400101.

Date:- 20/12/2021.

To whomsoever it may concern

This is to certify that Mr. Harshal Gupta, S/O-Mr. Bhulan Gupta a student of BE ELECTRICAL ENGINEERING, VIVA INSTITUTE OF TECHNOLOGY, VIRAR, has successfully completed 15 days from 03<sup>rd</sup> December'21 too 17<sup>th</sup> December'21 internship programme at our Company SHAKTI METAL WORKS-VASAI.

During this period he was found punctual, hardworking & inquisitive.

We wish him every success in life.





# SHREEJI PRESSURE GAUGE

Email : shreejipg@gmail.com

*Helping World to Measure...*

Date:-20/12/2021

To whomsoever it may concern

This is to certify that Mr. Ankit Ramjibhai Hirpara S/O-Mr. Ramjibhai Hirpara a student of BE ELECTRICAL ENGINEERING, VIVA INSTITUTE OF TECHNOLOGY, VIRAR, has successfully completed 15 days from 3<sup>rd</sup> December '21 to 17<sup>th</sup> December '21 internship programme at our Company SHREEJI PRESSURE GAUGE-MIRA ROAD.

During this period he was found punctual, hardworking & inquisitive.

We wish him every success in life.



# *The Brihan Mumbai Electric Supply & Transport Undertaking*

(OF THE BRIHAN MUMBAI MAHANAGARPALIKA)

TRAINING & INDUSTRIAL ENGINEERING DEPARTMENT

THE B.E.S. & T. UNDERTAKING

Club Road Building, 3rd Floor,

Maratha Mandir Marg, Mumbai Central Depot,

Mumbai Central, Mumbai - 400 008.

Tel. No. 022-23077670, 23097698

BEST BHAVAN,

BEST MARG,

POST BOX NO. 192,

MUMBAI - 400 001.

TELEPHONE : (022) 22856262

FAX : (022) 22851244

TELEX : 1185755 BEST IN

TELEGRAM : BEST, MUMBAI-400 001.

ADDRESS ALL COMMUNICATION BY TITLE  
NOT BY NAME

TIE/Est-36/ 16 /2022

OUR REF.

4 JAN 2022  
DATE:

## TO WHOMSOEVER IT MAY CONCERN.

This is to certify that **Ms. Samiksha Hiranman Jadhav** had undergone "Inplant Training" from 16.12.2021 to 01.01.2022 in Operation & Maintenance, Distribution Workshop, Street Lighting (Maintenance) and Material Testing & Standards Departments of Electric Supply Branch of the B.E.S.&T. Undertaking.

Her conduct during the training period was found to be "**Good**".

  
05/1/22  
Divisional Engineer  
Training & Industrial  
Engineering Department

**"BEST Travel Saves Fuel"**

# ELECTRICAL TRAINING CENTRE

## EMU CARSHED, VIRAR



पश्चिम रेलवे  
Western Railway

### CERTIFICATE

Certified that Mr./Miss. SHWETA NARENDRA KAMBLE.....  
Studying B.E./B.TECH/DIPLOMA in ELECTRICAL.....  
Engineering in Sem VII of VIVA INSTITUTE OF.....  
TECHNOLOGY has successfully completed Industrial Training  
from 2/12/2021 to 17/12/2021 at EMU CARSHED VIRAR, W. R.

Date : 17/12/2021

PRINCIPAL  
ELECTRICAL TRAINING CENTRE  
EMU CARSHED, VIRAR

# ELECTRICAL TRAINING CENTRE

## EMU CARSHED, VIRAR



पश्चिम रेलवे  
Western Railway

### CERTIFICATE

Certified that Mr./Miss. BHAKTI SADASHIV KHADYE  
Studying B.E./B.TECH/DIPLOMA in ELECTRICAL  
Engineering in Sem VII of VIVA INSTITUTE OF  
TECHNOLOGY..... has successfully completed Industrial Training  
from 08/12/2021... to 27/12/2021 at EMU CARSHED VIRAR, W. R.

Date : 27-12-2021

PRINCIPAL  
ELECTRICAL TRAINING CENTRE  
EMU CARSHED, VIRAR



# SAVITA TRANSFORMERS PVT. LTD.

**Manufacture & Repairs of :**

**Distribution Transformers, Furnace Transformers & CT / PT Units / Stabilizer & Rectifier**

FACTORY : PLOT No. G-53, M.I.D.C. TARAPUR, BOISAR, DIST. PALGHAR - 401 506.

CIN No. : U31100MH1990PTC056616, Email : savitatransformer@gmail.com, Cell : +91 8806400111

Date 25.12.2021

## TO WHOM IT MAY CONCERN

This is to certify that Miss, Vrushali Bhalchandra Kumbhar, (Aadhaar No.:351363318610) a student of Electrical Engineering, semVIII, Viva Institute of Technology, Virar(E), Maharashtra, Has successfully completed (From 10<sup>th</sup> December, 2021 to 18<sup>th</sup> December, 2021) internship programmer at this Company. During the period of his internship programmer with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For SAVITA TRANSFORMERS PVT. LTD.

Authorised Signatory



# THE HIND ELECTRIC & ENGINEERING CORPORATION

Fulare Solar Limited, Energy Training Center, Wagholi, Nallasopara (West)

Contact - +91 86002 09612, E-mail - [hindelectricvirar@gmail.com](mailto:hindelectricvirar@gmail.com)

Date:- 20/12/2021

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Pratik Bipin Makwana** a student of Viva Institute Of Technology, Virar (East) has completed his Internship Training at **The Hind Electric & Engineering Corporation.**

The duration of Internship was from 13<sup>th</sup> Dec, 2021 to 20<sup>th</sup> Dec, 2021.

During the Training Period his conduct was good.



The Hind Electric & Engr. Corp.



## WESTERN RAILWAY

Office of  
The Chief Workshop Manager,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400013  
Date: 05/01/2022

NO. E 1131/BTC (Elect)/ 27/2022

To,  
The Principal,  
Viva Institute of Technology, Viva Technical Campus,  
At post -Shirgaon, Virar(E), Dist-Palghar 401305

**Sub: Completion of In-plant training.**

**Ref:CWM L. No.E1131/CW/1 Vol- IV Dt:-18/12/2021**

**Mr. Aniket Murudkar** (Electrical) Student of your Institute has successfully completed the In-plant Training from 20/12/2021 to 05/01/2022 in this workshop imparted on following topic:

- |                     |                                |
|---------------------|--------------------------------|
| 1. Alternator       | 6. Power Maintenance           |
| 2. RRU & ERRU       | 7. Motor                       |
| 3. Winding          | 8. Elect. Control Panel        |
| 4. Battery          | 9. Elect. Switch Gears         |
| 5. Internal Fitting | 10. Coach Air-condition system |

He has submitted his training report to this office.

For Chief Workshop Manager  
W. Rly. Carriage Workshop,  
Lower Parel, Mumbai-13.

सहायक बिजली अभियंता (का) लोअर पारेल  
Asst. Electrical Engineer (W)  
Carriage Workshop  
Lower Parel, Western Railway  
Mumbai - 400 013.

# Certificate of Training

---

## Sreetish Mundayat

from VIVA INSTITUTE OF TECHNOLOGY, has successfully completed a six weeks online training on **Data Science**. The training consisted of Introduction to Data Science, Python for Data Science, Understanding the Statistics for Data Science and Predictive Modeling and Basics of Machine Learning modules.

In the final assessment, Sreetish scored 73% marks.

We wish Sreetish all the best for the future endeavours.



**Sarvesh Agarwal**

FOUNDER & CEO, INTERNSHALA

Date of certification: 2021-07-25

Certificate no. : 964E0863-9499-1A67-AF02-FBA89DAA50A0

For certificate authentication, please visit [https://trainings.internshala.com/verify\\_certificate](https://trainings.internshala.com/verify_certificate)



☎ (F) : 02525 - 205178

# SAVITA TRANSFORMERS PVT. LTD.

**Manufacture & Repairs of :**

**Distribution Transformers, Furnace Transformers & CT / PT Units / Stabilizer & Rectifier**

FACTORY : PLOT No. G-53, M.I.D.C. TARAPUR, BOISAR, DIST. PALGHAR - 401 506.

CIN No. : U31100MH1990PTC056616, Email : savitatransformer@gmail.com, Cell : +91 8806400111

Date 25/12/2021

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Vishal Shashikant Ojha, (Aadhaar No.: 280443316545) a student of Electrical Engineering, sem VIII, Viva Institute of Technology, Virar (E), Maharashtra. Has successfully completed (From 10<sup>th</sup> December, 2021 to 18<sup>th</sup> December, 2021) internship programmer at this Company. During the period of his internship programmer with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For SAVITA TRANSFORMERS PVT. LTD.

Authorised Signatory





# SAMARTH AIRCON PVT. LTD.

Reg. Office : 201, 2<sup>nd</sup> Floor, Shival Industrial Estate, Sakinaka, Mumbai 400 072 Tel: 022- 2850 1941 / 2850 4419

## TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. Pooja Kiran Pashte a student of Viva Institute of Technology,

Virar (East) successfully complete her training from 17<sup>th</sup> the December to 31<sup>st</sup> December 2021

At Samarth Aircon Private Limited.

During the period of her Internship Programme with us she was found punctual hardworking & Inquisitive.

We wish her every success in life.

Date :- 01/01/2022

For Samarth Aircon Private Limited



Place – Wada

Authorized Signatory



# SAVITA TRANSFORMERS PVT. LTD.

☎ (F) : 02525 - 271272

'1272

**Manufacture & Repairs of :**  
**Distribution Transformers, Furnace Transformers & CT / PT Units**

**FACTORY : PLOT No. G-53, M.I.D.C. TARAPUR, BOISAR, DIST. THANE - 401 506.**

CIN NO.:U31100MH1990PTC056616, e mail ID : savittransformers@gmail.com, Contact No. : 08806400111

Date: 06.01.2022

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Sharad Ganesh Paradhi, (Aadhaar No.: 81058454292) a student of Electrical Engineering, sem VII, Viva Institute of Technology, Virar (E), Maharashtra. Has successfully completed (From 30<sup>th</sup> December, 2021 to 05<sup>th</sup> January, 2022) internship programmer at this Company. During the period of his internship programmer with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For SAVITA TRANSFORMERS PVT. LTD.



Mobile No: 8007283111

## GURUKRIPA INDUSTRIES

Specialist In: All Kinds of Press Metal parts, Dies, imitation jewelry & Job Works, etc.  
At. & Post: Vangaon, Near Gram panchayat Office, Tal.-Dahanu, Dist.-Palghar. Pin-401103

Date: 02-11-2021

### TO WHOM IT MAY CONCERN

This is to certify that Mr. **Dakshat Bhalchandra Patil**, has completed an internship in the field of Electrical Engineering for the period of **1 month** from 01-10-2021 to 01-11-2021.

During this period of his internship program with us he had been exposed to different processes and was found diligent & hardworking. We wish him every success in his life and career.

For Gurukripa Industries

For Gurukripa Industries

Keshavnagar

Proprietor

Jan 12, 2022

### **CERTIFICATE OF INTERNSHIP**

This is to certify that **Mr. Rushikesh Kumar Patil**, student of Fourth Year of Electrical Engineering at Viva Institute of Technology, Shirgaon, Palghar, has undergone ten days internship project in screw chiller department at Our, 'Wada Plant' from **Dec 10, 2021 to Dec 18, 2021** under Mr. Sachin Taksale - Deputy Manager Production.

During the internship tenure, we found him to be punctual and performance oriented. Rushikesh has completed entire work of his study with complete dedication and sincerity. He has prepared and submitted his report which may be useful for the organization in future.

We wish him all success in his future endeavours.

For Blue Star Limited



**Sanjay Yerunkar**  
Deputy General Manager – Human Resources



Jan 12, 2022

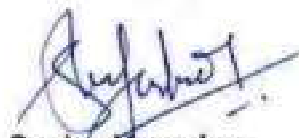
### CERTIFICATE OF INTERNSHIP

This is to certify that **Mr.Sanket Sopan Patil** student of Fourth Year of Electrical Engineering at Viva Institute of Technology, Shirgaon, Palghar, has undergone ten days internship project in screw chiller department at Our, 'Wada Plant' from **Dec 10, 2021 to Dec 18, 2021** under Mr. Sachin Taksale - Deputy Manager Production.

During the internship tenure, we found him to be punctual and performance oriented. Sanket has completed entire work of his study with complete dedication and sincerity. He has prepared and submitted his report which may be useful for the organization in future.

We wish him all success in his future endeavours.

For Blue Star Limited



**Sanjay Yerunkar**  
Deputy General Manager – Human Resources





# SAVITA TRANSFORMERS PVT. LTD.

**Manufacture & Repairs of :**

**Distribution Transformers, Furnace Transformers & CT / PT Units / Stabilizer & Rectifier**

FACTORY : PLOT No. G-53, M.I.D.C. TARAPUR, BOISAR, DIST. PALGHAR - 401 506.

CIN No. : U31100MH1990PTC056616, Email : savitratransformer@gmail.com, Cell : +91 8806400111

Date: 25.12.2021

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Niraj Maruti Pawar, (Aadhaar No.: 960501629109) a student of Electrical Engineering, sem VIII, Viva Institute of Technology, Virar(E), Maharashtra. Has successfully completed (From 10<sup>th</sup> December, 2021 to 18<sup>th</sup> December, 2021) internship programmer at this Company. During the period of his internship programmer with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For SAVITA TRANSFORMERS PVT. LTD.

Authorised Signatory





Techq Konnect Technologies Pvt. Ltd.  
Off. No. 203, 2nd Floor, Maruti Chambers II,  
Beside Vasai Bus Depot,  
Vasai West, Maharashtra - 401202.

9870332716 / 7304128121  
info@techqkonnect.com  
www.techqkonnect.com

REF NO: TKTCT\_IL046

DATE: 05/01/2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Miss Priyanka Pawar has successfully completed internship from 20<sup>th</sup> December 2021 to 31<sup>st</sup> December 2021 as an Embedded Developer Intern at Techq Konnect Technologies Private Limited.

During the internship she worked on various Embedded System projects including prototyping and testing of IoT systems.

She demonstrated good skills with an attitude to learn new things. We wish her all the very best for her career and future endeavours.

*Ankit*  
05-01-22

Ankit Patil  
Director, Techq Konnect.



पश्चिम रेलवे  
Western Railway

## WESTERN RAILWAY

Office of  
The Chief Workshop Manager,  
Carriage Repair Workshop,  
N M Joshi Marg, Lower Parel,  
Mumbai - 400013  
Date: 05/01/2022

NO. E 1131/BTC (Elect)/ 27/2022

To,  
The Principal,  
Viva Institute of Technology, Viva Technical Campus,  
At post- Shirgaon, Virar (E), Dist-Palghar 401305

**Sub: Completion of In-plant training.**

**Ref: CWM L. No.E1131/CW/1 Vol- IV Dt:-18/12/2021**

**Mr.Rahul Pawar** (Electrical) Student of your Institute has successfully completed the In-plant Training from 20/12/2021 to 05/01/2022 in this workshop imparted on following topic:

- |                     |                                |
|---------------------|--------------------------------|
| 1. Alternator       | 6. Power Maintenance           |
| 2. RRU & ERRU       | 7. Motor                       |
| 3. Winding          | 8. Elect. Control Panel        |
| 4. Battery          | 9. Elect. Switch Gears         |
| 5. Internal Fitting | 10. Coach Air-condition system |

He has submitted his training report to this office.

For Chief Workshop Manager  
W. Rly. Carriage Workshop,  
Lower Parel, Mumbai-13.

सहायक बिजली अभियंता (का) लोअर पारेल  
Asst. Electrical Engineer (W)  
Carriage Repair Workshop  
Lower Parel, Western Railway  
Mumbai - 400 013.



CALYX CHEMICALS & PHARMACEUTICALS LTD.  
Plot No. N-1629/192, M.I.D.C. Talapur,  
Dahanu, Dist. Palghar.

Date- 24<sup>th</sup> December, 2021

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr. Tanay Narendra Pimple student of VIVA Institute of education, Virar, Electrical Engineering branch, has successfully completed his Internship Programme in our organization for the period from 11<sup>th</sup> December, 2021 to 24<sup>th</sup> December, 2021. During this tenure with us, we found him sincere and hardworking.

We wish him all the success in his future endeavors.

With Best Regards,

For Calyx Chemicals & Pharmaceuticals Ltd.

Authorized Signatory



पश्चिम क्षेत्रीय भार प्रेषण केन्द्र  
एफ-3, सेंट्रल रोड, एम.आई.डी.सी. एरिया, मरोल, अंधेरी (पूर्व), मुंबई - 400 093.  
दूरभाष : 022-28202690 • टेलिफैक्स : 022-28235434, 28202630 • ई-मेल : wrldc@posoco.in  
WESTERN REGIONAL LOAD DESPATCH CENTRE  
F-3, Central Road, MIDC Area, Marol, Andheri (East), Mumbai - 400 093.  
Phone : 022-28202690 • Telefax : 28235434, 28202630 • E-mail : wrldc@posoco.in  
CIN : U40105DL2009GOM168682

संदर्भ संख्या / Ref. No. POSOCO/WRLDC/HR/Trg/2022/80

Date: 04.02.2022

### **TO WHOM IT MAY CONCERN**


This is to certify that Mr/Ms **POOJARI SNEHA DEVRAJ**, student of **Viva Institute of Technology** has successfully completed Industrial Training at POSOCO, Western Regional Load Despatch Centre, F-3, MIDC Area, Marol, Andheri(E), Mumbai from **11<sup>th</sup> October, 2021 to 10<sup>th</sup> December, 2021**.

The performance of above student during training was good, his/her punctuality, intense perseverance and initiative to the tasks assigned was appreciably substantial.

This certificate is being issued to him/her as required under his/her course curriculum/academic requirement only and it shall not be used for any other purposes.

We wish him/her success in his/her future endeavor.

Yours sincerely,

  
(Jamar Ahmad Khan)  
Asst. Manager (HR)



स्वच्छ एवं राष्ट्र हित में ऊर्जा बनाये

Save Energy for Benefit of Self and Nation

पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल, बी-8, कृतब इंस्टिट्यूशनल एरिया कटवारीया सराय, नई दिल्ली - 110016  
Registered & Corporate Office : 1<sup>st</sup> Floor, B-8, Outab Institutional Area, Katwaria Sarai, New Delhi - 110016  
Website : www.posoco.in, Email : posoco@posoco.in

Mobile No: 8007283111

## **GURUKRIPA INDUSTRIES**

Specialist In: All Kinds of Press Metal parts, Dies, imitation Jewelry & Job Works, etc.  
At. & Post: Vangaon, Near Gram panchayat Office, Tal. -Dahanu, Dist. -Palghar Pin-401103

Date: 02-11-2021

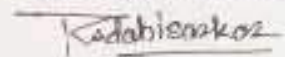
### **TO WHOM IT MAY CONCERN**

This is to certify that Mr. **Kalpita Manohar Raut**, has completed an internship in the field of Electrical Engineering for the period of **1 month** from 01-10-2021 to 01-11-2021.

During this period of his internship program with us he had been exposed to different processes and was found diligent & hardworking. We wish him every success in his life and career.

For Gurukripa Industries

For Gurukripa Industries



Proprietor

CN-254

# ELECTRICAL TRAINING CENTRE

## EMU CARSHED, VIRAR



पश्चिम रेलवे  
Western Railway

### CERTIFICATE

Certified that Mr./Miss PRATHAM PANDHARINATH RAWOL  
Studying B.E./B.TECH/DIPLOMA in ELECTRICAL  
Engineering in Sem VII of VIVA INSTITUTE OF  
TECHNOLOGY has successfully completed Industrial Training  
from 2/12/2021 to 17/12/2021 at EMU CARSHED VIRAR, W. R.

Date : 17/12/2021

PRINCIPAL  
ELECTRICAL TRAINING CENTRE  
EMU CARSHED, VIRAR

**MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD**  
**C.C. O&M DIVISION, RATNAGIRI**



(A.Govt. of Maharashtra Undertaking)  
CIN : U40109MH2005SGC153645

Office of the Executive Engineer  
Const.cum O&M Divn. Ratnagiri  
Administrative Building, Nachne Road.  
Ratnagiri. 415639 Gram:EXGRID  
Ph.No.:- (02352) 222865  
Fax - 02352-22-1041  
email - [eeratnagiri@ho.mahadiscom.in](mailto:eeratnagiri@ho.mahadiscom.in)  
web site - [www.mahadiscom.in](http://www.mahadiscom.in)

No.EE/RTN/HR/

000137

Date :-

07 JAN 2022

**CERTIFICATE**

This is to certify that *Ku. Rutik Ankush Shinde*, has successfully completed the *Internship Training* as per Principal Request at Maharashtra State Electricity Distribution Company Limited, *Section Office Pawas-II, Sub-Division Office Ratnagiri Rural* w.e.f. *11.12.2021 to 31.12.2021*.

  
**Executive Engineer,  
Ratnagiri.**

**Copy :**

*Ku. Rutik Ankush Shinde*

**To,**

*Dy. Executive Engineer,  
MSEDCL, .*

*Sub-Division Office Ratnagiri Rural*

☼ THE HIND ELECTRIC & ENGINEERING CORPORATION ☼

Fulare Solar Limited, Energy Training Center, Wagholi, Nallasopara (West)

Contact - +91 86002 09612, E-mail - [hindelectrivyirar@gmail.com](mailto:hindelectrivyirar@gmail.com)

---

Date:- 18/01/2022

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **MR. HITESH RAMCHANDRA SOLIM** a student of Viva Institute Of Technology, Virar (East) has completed his Internship Training at **The Hind Electric & Engineering Corporation**.

The duration of Internship was from 10<sup>th</sup> Jan 2022 to 17<sup>th</sup> Jan 2022 .

During the Training Period his conduct was good.



The Hind Electric & Engr. Corp.

**Date: 30<sup>th</sup> Dec, 2019**

**TO WHOM SO EVER IT MAY CONCERN**

This is to certify that Ms. Chetana Narayan Thakare from Viva Institute of Technology, Virar has undergone in-Plant Training for One Month in Our Wada Plant from 2<sup>nd</sup> Dec 2019 To 30<sup>th</sup> Dec 2019 in Maintenance Department.

During the tenure with us, we found her honest, obedient and hardworking.

We wish her all the best for his future endeavors.

For Hindustan Coca - Cola Beverages Pvt. Ltd



Upendra Shelke  
Executive Factory-HR



## THE HIND ELECTRIC & ENGINEERING CORPORATION

Fulare Solar Limited, Energy Training Center, Wagholi, Nallasopara (West)

Contact - +91 86002 09612, E-mail - [hindelectricvirar@gmail.com](mailto:hindelectricvirar@gmail.com)

Date:- 12/01/2022

### TO WHOM SO EVER IT MAY CONCERN

This is to certify that **MR. DHRUVESH PRASHANT VANMALI** a student of Viva Institute Of Technology, Virar (East) has completed his Internship Training at **The Hind Electric & Engineering Corporation.**

The duration of Internship was from 8<sup>TH</sup> Dec 2021 to 31<sup>ST</sup> Dec 2021 .

During the Training Period his conduct was good.



The Hind Electric & Engr. Corp.

Jan 12, 2022

### CERTIFICATE OF INTERNSHIP

This is to certify that **Mr. Ashutosh Nitin Vaze**, student of Fourth Year of Electrical Engineering at Viva Institute of Technology, Shirgaon, Palghar, has undergone ten days internship project in screw chiller department at Our, 'Wada Plant' from **Dec 10, 2021 to Dec 18, 2021** under Mr. Sachin Taksale - Deputy Manager Production.

During the internship tenure, we found him to be punctual and performance oriented. Ashutosh has completed entire work of his study with complete dedication and sincerity. He has prepared and submitted his report which may be useful for the organization in future.

We wish him all success in his future endeavours.

For **Blue Star Limited**



**Sanjay Yerunkar**  
Deputy General Manager – Human Resources



Date:-07/01/2022

TO WHOM-SO-EVER IT MAY CONCERN

This is to certify that *Mr. Prathamesh Prakash Vekhande* of *Viva Institute of Technology, Virar*, has completed an intership at our Wada Factory from *01/12/2021 to 05/01/2022*.

In this internship, he has successfully completed training and assignment. He has also learned the various practices of maintenance Department.

We wish him the very best in his future endeavors.

For MIRC ELECTRONICS LIMITED,

  
Authorised Signatory



**MIRC ELECTRONICS LIMITED**

H. O.: Onida House, G-1, M.I.D.C., Mahakali Caves Road, Andheri (E), Mumbai - 400 093. Tel.: 91-22-66975777 Fax: 91-22-282 36475  
Factory: Village Kudus, Bhiwandi Wada Road, Taluka Wada, Dist - Palghar - 421312 Tel.: 8554998530 / 31 / 32 / 33  
CIN No.: L32300MH1981PLC023637



# SAVITA TRANSFORMERS PVT. LTD.

**Manufacture & Repairs of :**

**Distribution Transformers, Furnace Transformers & CT / PT Units / Stabilizer & Rectifier**

FACTORY : PLOT No. G-53, M.I.D.C. TARAPUR, BOISAR, DIST. PALGHAR - 401 506.

CIN No. : U31100MH1990PTC056616, Email : savitatransformer@gmail.com, Cell : +91 8806400111

Date: 25.12.2021

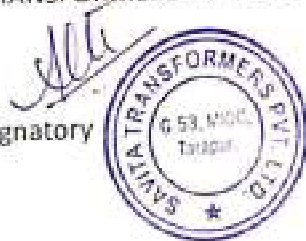
## TO WHOM IT MAY CONCERN

This is to certify that Miss, Surekha Chintaman Velpada, (Aadhaar No.: 273808690741) a student of Electrical Engineering, sem VIII, Viva Institute of Technology, Virar(E), Maharashtra. Has successfully completed (From 10<sup>th</sup> December, 2021 to 18<sup>th</sup> December, 2021) internship programmer at this Company. During the period of his internship programmer with us he was found punctual, hardworking and inquisitive.

We wish him every success in life.

For SAVITA TRANSFORMERS PVT. LTD.

Authorised Signatory



# ELECTRICAL TRAINING CENTRE

## EMU CARSHED, VIRAR



पश्चिम रेलवे  
Western Railway

### CERTIFICATE

Certified that Mr./Miss. AAKASH SATISH YADAV  
Studying B.E./B.TECH/DIPLOMA in ELECTRICAL  
Engineering in Sem VII of VIVA INSTITUTE OF  
TECHNOLOGY has successfully completed Industrial Training  
from 2/12/2021 to 17/12/2021 at EMU CARSHED VIRAR, W. R.

Date : 17/12/2021

*[Signature]*

PRINCIPAL  
ELECTRICAL TRAINING CENTRE  
EMU CARSHED, VIRAR

Date: 14<sup>th</sup> January 2022

### Internship Completion Certificate

We are glad to inform you that Mr. Suraj Gupta from VIVA INSTITUTE OF Technology, has successfully completed his Internship from 10<sup>th</sup> December 2021 to 13<sup>th</sup> January 2022.

During his Internship, he was exposed to the entire manufacturing process of LV Control Panels.

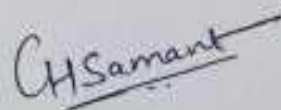
We found him hardworking, he was interested to learn the function of our core division and also willing to put his best efforts and get in to the depth of subject to understand it better.

His association with us was very fruitful and we wish him all the best in his future endeavors.

Thanking You,

Yours Faithfully

For Arrow Electricals India Pvt Ltd



Ms. Gaurangi Samant  
Executive HR



## **Adani Dahanu Thermal Power Station (ADTPS)**

CEA Approved (Category-I, Grade-A) Adani Technical Training Centre

Ref: AEML/ADTPS-AIIE/ATTC/2021-22/2W/M23

Date: 01 / 09 / 2021

### **Internship Training MERIT** **Certificate**

This is to certify that **Mr./Ms. Gaurav Ganpat Dalvi**,  
student of **Viva institute of technology** has successfully completed

Two Weeks Online Internship Training Program on

### **"Electrical Engineering @ Large Scale Industries"**

Organized by Adani Electricity Mumbai Ltd, Dahanu in association with  
Adani Institute of Infrastructure Engineering (AIIE), Ahmedabad for the  
period 02nd to 14th August 2021.



*Alok Singh*  
**Dr. Alok Kumar Singh**

**Program Coordinator**

**AIIE**

*Roshan N. Patil*

**Mr. Roshan N. Patil**

**Program Coordinator**

**ADTPS**

*Dinesh R. Mantri*

**Mr. Dinesh R. Mantri**

**In-Charge (Training)**

**ADTPS**

# ADITYA INDUSTRY

At. Post. Palsai, Tal. Wada, Dist. Palghar 421 303 Cont.: 9125555551

Date :

DATE:31/12/2021

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Mahesh Uttam Gujare a student of BE Electrical Engg has successfully completed 01 month (01 December to 30 December 2021) Internship at Aditya Industry. During the period of Summer Internship programme with us he is found sincere and hardworking, we wish all success in his future endeavour.

Authorized Signatory

For ADITYA INDUSTRY

For Aditya Industry

Proprietor

## RAJDEEP INDUSTRIES

Mfg. of : Plating and Anodizing Rectifier Equipments (IGBT Controlled, Thyristor & Dimmer Controlled), All Anodizing & Plating Plants  
Servo Controlled Voltage Stabilizer, All Type of Transformers, Auto Transformers (Dimmer 4 Amps to 600 Amps)

OFF.: B/203, Saikripa CHS Ltd., B Bldg., B Wing, Near Ashwini Hospital, Goddev Naka, Bhayandar (E), Dist. Thane - 401 105

FAC.: Gala No. 7, Agrawal Ind. Estate, Bldg. No. 6, Opp. Vishattha Hotel, Sativali Road, Waliv, Vasai (E) - 401 202

Mob.: 93206 16191 • Website - [www.rajdeep-industries.com](http://www.rajdeep-industries.com) • Email - [rajdeepindustries84@gmail.com](mailto:rajdeepindustries84@gmail.com), [sureshchaurasia1972@gmail.com](mailto:sureshchaurasia1972@gmail.com)

Date: 08/01/ 2022

### TO WHOMSOEVER IT MAY CONCERN

This is to Certify that Mr. Rahul Gupta from Viva Institute of Technology, He worked as a Expert worker in Production and Manufacturing Department of "RAJDEEP INDUSTRIES" From 10<sup>th</sup> December 2021 to 08<sup>th</sup> January 2022 .

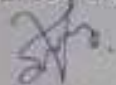
It is further Certified that above Company is Engaged in Manufacturing and Servicing Of Industrial Auto-transformer, Stabilizer And Rectifier.

During above period we found him professional, dedicated, hardworking and sincere.

We wish him All The Best in Future Endeavour.

RAJDEEP INDUSTRIES

Suresh Chaurasia

  
(Proprietor)



## **Adani Dahanu Thermal Power Station (ADTPS)**

CEA Approved (Category-I, Grade-A) Adani Technical Training Centre

Ref: AEML/ADTPS-AIIE/ATTC/2021-22/2W/M25

Date: 01 / 09 / 2021

### **Internship Training MERIT** **Certificate**

This is to certify that **Mr./Ms. Akash Ashok Holmukhe,**  
student of **Viva institute of technology** has successfully completed

Two Weeks Online Internship Training Program on

### **"Electrical Engineering @ Large Scale Industries"**

Organized by Adani Electricity Mumbai Ltd, Dahanu in association with  
Adani Institute of Infrastructure Engineering (AIIE), Ahmedabad for the  
period 02nd to 14th August 2021.



*Alok Singh*

**Dr. Alok Kumar Singh**

**Program Coordinator**

**AIIE**

*Roshan N. Patil*

**Mr. Roshan N. Patil**

**Program Coordinator**

**ADTPS**

*Dinesh R. Mantri*

**Mr. Dinesh R. Mantri**

**In-Charge (Training)**

**ADTPS**

# ADITYA INDUSTRY


At. Post. Palsai, Tal. Wada, Dist. Palghar 421 303 Cont.: 9125555551

Date :

DATE:31/12/2021

## TO WHOM IT MAY CONCERN

This is to certify that **Ms.Sejal Subhash Pashte** a student of BE Electrical Engg has successfully completed 01 month (01 December to 30 December 2021) Internship at Aditya Industry .During the period of Summer Internship programme with us she is found sincere and hardworking , we wish all success in her future endeavour.

Authorized Signatory  
for ADITYA INDUSTRY  
  
For Aditya Industry Proprietor

## **Adani Dahanu Thermal Power Station (ADTPS)**

CEA Approved (Category-I, Grade-A) Adani Technical Training Centre

Ref: AEML/ADTPS-AIIE/ATTC/2021-22/2W/M22

Date: 01 / 09 / 2021

### **Internship Training MERIT** **Certificate**

This is to certify that **Mr./Ms. Bhavin martand patil**,  
student of **Viva institute of technology** has successfully completed  
Two Weeks Online Internship Training Program on

### **"Electrical Engineering @ Large Scale Industries"**

Organized by Adani Electricity Mumbai Ltd, Dahanu in association with  
Adani Institute of Infrastructure Engineering (AIIE), Ahmedabad for the  
period 02nd to 14th August 2021.



*Alok Singh*  
Dr. Alok Kumar Singh

Program Coordinator

AIIE

*Roshan N. Patil*

Mr. Roshan N. Patil

Program Coordinator

ADTPS

*Dinesh R. Mantri*

Mr. Dinesh R. Mantri

In-Charge (Training)

ADTPS

## **Adani Dahanu Thermal Power Station (ADTPS)**

CEA Approved (Category-I, Grade-A) Adani Technical Training Centre

Ref: AEML/ADTPS-AIIE/ATTC/2021-22/2W/M27

Date: 01 / 09 / 2021

### **Internship Training MERIT** **Certificate**

This is to certify that **Mr./Ms. Pratik Vijay Patil**,  
student of **Viva Institute of Technology / Mumbai University** has  
successfully completed

Two Weeks Online Internship Training Program on

### **"Electrical Engineering @ Large Scale Industries"**

Organized by Adani Electricity Mumbai Ltd, Dahanu in association with  
Adani Institute of Infrastructure Engineering (AIIE), Ahmedabad for the  
period 02nd to 14th August 2021.



  
**Dr. Alok Kumar Singh**

**Program Coordinator**

**AIIE**

  
**Mr. Roshan N. Patil**

**Program Coordinator**

**ADTPS**

  
**Mr. Dinesh R. Mantri**

**In-Charge (Training)**

**ADTPS**



## Aarti Drugs Limited

Manufacturers of : Bulk Drugs & Chemicals

Factory : Plot No. N-198/199/202/228/229,  
M.I.D.C., Tarapur, Near Kumbhavali Naka  
Tal. Palghar, Dist. Palghar Pin-401 506  
State - Maharashtra, INDIA  
TEL: 02525 - 270259/ 271699  
Fax: (91-2525) 273368  
Email - adln198@aartidrugs.com  
Website: www.aartidrugs.com

Wednesday, July 28, 2021

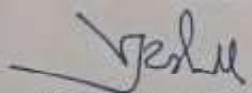
### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Nikhil Sudhakar Sankhe** was working as an **In Plant Trainee** in Electrical Department in our Organization from **01.07.2021** to **15.07.2021**.

He is intelligent, hard working and possessing a good academic career. We found him to be sincere, innovative and regular in attendance. His determination and sense of responsibility will help him grow in his chosen field.

We wish him all the success in his future endeavors.

Yours Truly,  
for **AARTI DRUGS LTD.,**

  
(**VIJAY J. DESHMUKH**)  
**MANAGER (HR & PERS)**

CORPORATE OFFICE: MAHENDRA INDUSTRIAL ESTATE, GROUND FLOOR, PLOT NO.108-D, ROAD NO. 29, SIGN (E),  
MUMBAI - 400 022, MAHARASHTRA, INDIA TEL: 24072249 / 24072440 / 24072437 / 24019025  
TELX: 011- 271122 DRUGS IN CABLE AARTI DRUGS MUMBAI - 400 022 FAX: 022 - 2407348  
REGD. OFFICE: PLOT NO. N-198, M.I.D.C., TARAPUR, VILLAGE PAMTEMBHI, TAL. - PALGHAR, DIST. PALGHAR - 40150  
Tel: 02525 - 270259 / 271699 TELFAX: (91-2525) 273368

Date: 30/12/2021

### TO WHOM IT MAY CONCERN

This is to certify that **MISS. KRITI NARENDRA SINGH**, Daughter of Mr. Narendra Kumar Ramsagar Singh. A student of **ELECTRICAL ENGINEERING, VIVA INSTITUTE OF TECHNOLOGY, Virar East**. She has successfully completed Industrial Training during **15/12/2021 to 30/12/2021** to the best of ability. She has been done short time of internship programmer at this company. During the period of her internship programmer with us she was found punctual, hardworking and inquisitive.

We wish her every success in life,

FOR AIRTECH SYSTEM INDIA PVT LTD



Authorized Signature

**AIRTECH SYSTEMS (INDIA) PVT. LTD.**

**Corporate Office**

502 & 503, Satellite Silver,  
Andheri-Kurla Road, Marol Naka,  
Andheri (E), Mumbai - 400 059.

T | +91 22 2852 2270  
+91 99 2092 9820  
+91 22 2859 2275  
E | info@airtechsys.in

**Works**

Plot No. 5, 6, 7 & 8, Mohan Bacchu Dubey & Sons Indl. Estate,  
Nandore Village, Paighar Manor Road, Paighar (E),  
Dist. Paighar - 401404, Maharashtra, INDIA.

T | +91 88790  
E | info@airtec  
W | www.airtec

Date: 30/12/2021

**TO WHOM IT MAY CONCERN**

This is to certify that **MISS. SHRUTIKA PANDURANG SONALKAR**, Daughter of Mr. Pandurang Govind Sonalkar. A student of **ELECTRICAL ENGINEERING, VIVA INSTITUTE OF TECHNOLOGY, Virar East**. She has successfully completed Industrial Training during **15/12/2021 to 30/12/2021**. She has been done short time of internship programmer at this company. During the period of her internship programmer with us she was found punctual, hardworking and inquisitive.

We wish her every success in life,

**FOR AIRTECH SYSTEM INDIA PVT LTD**



Authorized Signature

**AIRTECH SYSTEMS (INDIA) PVT. LTD.**

**Corporate Office**

502 & 503, Satellite Silver,  
Andheri-Kurla Road, Marol Naka,  
Andheri (E), Mumbai - 400 059.

T : +91 22 2852 2270  
+91 99 2092 9820  
+91 22 2859 2275  
E : info@airtechsys.in

**Works**

Plot No. 5, 6, 7 & 8, Mohan Bacchu Dubey & Sons Indl. Estate,  
Nandore Village, Palghar Manor Road, Palghar (E),  
Dist. Palghar - 401404, Maharashtra, INDIA.

T : +91 88790  
E : info@airtech  
W : www.airtech

## **Adani Dahanu Thermal Power Station (ADTPS)**

CEA Approved (Category-I, Grade-A) Adani Technical Training Centre

Ref: AEML/ADTPS-AIIE/ATTC/2021-22/2W/M28

Date: 01 / 09 / 2021

### **Internship Training MERIT** **Certificate**

This is to certify that **Mr./Ms. Prasad Sudhir Thakare,**  
student of **VIVA Institute of Technology, Mumbai University** has  
successfully completed

Two Weeks Online Internship Training Program on

### **"Electrical Engineering @ Large Scale Industries"**

Organized by Adani Electricity Mumbai Ltd, Dahanu in association with  
Adani Institute of Infrastructure Engineering (AIIE), Ahmedabad for the  
period 02nd to 14th August 2021.



*Alok Singh*  
**Dr. Alok Kumar Singh**

**Program Coordinator**

**AIIE**

*Roshan N. Patil*

**Mr. Roshan N. Patil**

**Program Coordinator**

**ADTPS**

*Dinesh R. Mantri*

**Mr. Dinesh R. Mantri**

**In-Charge (Training)**

**ADTPS**



# POLY RUB CHEM

SYNTHETIC RUBBER ♦ CHEMICALS ♦ SOLVENTS ♦ RUBBER COMPOUNDS

PHONE : 2685 9097  
CELL : 93230 70129

EMAIL : polynrubchem@gmail.com

## TO WHOM IT MAY CONCERN

This is to certify that Mr. Ashish Bharakhada, S/O- Mr. Mahesh Bharakhada, a student of BE ELECTRICAL ENGINEERING, VIVA INSTITUTE OF TECHNOLOGY, VIRAR, has successfully completed 01(ONE) month (From 20 JUNE, 2021 to 20 JULY, 2021) internship programme at our Company M/s.POLY RUB CHEM-GOREGAON (EAST),MUMBAI-400063 During the period of his internship programme with us he was found punctual,hardworking and inquisitive.

We wish him every success in life.

For POLY RUB CHEM

  
Authorized Signature

Date : 25/07/2021

# The Brihan Mumbai Electric Supply & Transport Undertaking

(OF THE BRIHAN MUMBAI MAHANAGARPALIKA)

TRAINING & INDUSTRIAL ENGINEERING DEPARTMENT

TIE & T.U. UNDERTAKING

Office No. 102, 1st Floor,

Marsiba Mandir, N. H. 10, Central Depot,

Mumbai District, Mumbai - 400 008.

Tel. No. 022-23077675/2307698

TELEPHONE : (022) 22856262

FAX : (022) 22851244

TELEX : 1185755 BEST IN

TELEGRAM : BEST, MUMBAI-400 001.

BEST BHAVAN,  
BEST MARG,  
POST BOX NO. 192,  
MUMBAI - 400 001.

ADDRESS ALL COMMUNICATION BY TITLE  
NOT BY NAME

OUR REF. : TIE/Est-36/ 16 /2022

DATE : 4 JAN 2022

## TO WHOMSOEVER IT MAY CONCERN.

This is to certify that **Ms. Siddhi Anil Jadhav** had undergone "Inplant Training" from 16.12.2021 to 01.01.2022 in Operation & Maintenance, Distribution Workshop, Street Lighting (Maintenance) and Material Testing & Standards Departments of Electric Supply Branch of the B.E.S.&T. Undertaking.

Her conduct during the training period was found to be **"Good"**.

  
04/1/22  
Divisional Engineer  
Training & Industrial  
Engineering Department

**"BEST Travel Saves Fuel"**

पश्चिम क्षेत्रीय लोड डिस्पैच सेंटर  
एफ-3, सेंट्रल रोड, एम्.डी.सी. एरिया, मरोल, अंधेरी (पूर्व), मुंबई - 400 093.  
दूरभाष : 022-28202690 • फैक्स : 022-28235434, 28202630 • ई-मेल : wrldc@posoco.in  
WESTERN REGIONAL LOAD DESPATCH CENTRE  
F-3, Central Road, MIDC Area, Marol, Andheri (East), Mumbai - 400 093.  
Phone : 022-28202690 • Telefax : 28235434, 28202630 • E-mail : wrldc@posoco.in  
CIN : U40105DL2009GOI188482

संदर्भ संख्या / Ref. No. POSOCO/WRDLC/HR/Trg/2022/ 29

Date: 04.02.2022

### TO WHOM IT MAY CONCERN

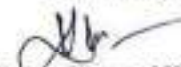
This is to certify that Mr/Ms **PAWAR FALGUNI RAMCHANDRA**, student of **Viva Institute of Technology** has successfully completed Industrial Training at POSOCO, Western Regional Load Despatch Centre, F-3, MIDC Area, Marol, Andheri(E), Mumbai from 11<sup>th</sup> October, 2021 to 10<sup>th</sup> December, 2021.

The performance of above student during training was good, his/her punctuality, intense perseverance and initiative to the tasks assigned was appreciably substantial.

This certificate is being issued to him/her as required under his/her course curriculum/ academic requirement only and it shall not be used for any other purposes.

We wish him/her success in his/her future endeavor.

Yours sincerely,

  
(Jafar Ahemad Khan)  
Asst. Manager (HR)



स्वच्छ एवं राष्ट्र हित में ऊर्जा बचाये

Save Energy for Benefit of Self and Nation

पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल, बी-9, कृतुस इन्स्टिट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016  
Registered & Corporate Office : 1<sup>st</sup> Floor, B-9, Outab Institutional Area, Katwaria Sarai, New Delhi - 110016  
Website - www.posoco.in, Email : posococo@posoco.in

THE HIND ELECTRIC & ENGINEERING CORPORATION

Future Solar Limited, Energy Training Center, Wagholi, Nallasopara (West)  
Contact - +91 86002 09612, E-mail - [hindselectric@rediffmail.com](mailto:hindselectric@rediffmail.com)

Date:- 18/03/2022

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **MR. VINAY UMESH KUMAR UPADHYAY** a student of Viva Institute Of Technology, Virar (East) has completed his Internship Training at **The Hind Electric & Engineering Corporation.**

The duration of Internship was from 10<sup>th</sup> Jan 2022 to 17<sup>th</sup> Jan 2022.

During the Training Period his conduct was good.



The Hind Electric & Engr. Corp.

पश्चिम क्षेत्रीय घाट प्रेषण केन्द्र  
एफ-3, सेंट्रल रोड, एम्.डी.सी. एरिया, मरोल, अंधेरी (पूर्व), मुंबई - 400 093.  
दूरभाष : 022-28202690 • फैक्स : 022-28235434, 28202630 • ई-मेल : wrldc@posoco.in  
WESTERN REGIONAL LOAD DESPATCH CENTRE  
F-3, Central Road, MIDC Area, Marol, Andheri (East), Mumbai - 400 093.  
Phone : 022-28202690 • Telefax : 28235434, 28202630 • E-mail : wrldc@posoco.in  
CIN : U40105DL2009GOI188482

संदर्भ संख्या / Ref. No. POSOCO/WRLDC/HR/Trg/2022/ 29

Date: 04.02.2022

### TO WHOM IT MAY CONCERN

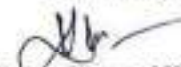
This is to certify that Mr/Ms **PAWAR FALGUNI RAMCHANDRA**, student of **Viva Institute of Technology** has successfully completed Industrial Training at POSOCO, Western Regional Load Despatch Centre, F-3, MIDC Area, Marol, Andheri(E), Mumbai from 11<sup>th</sup> October, 2021 to 10<sup>th</sup> December, 2021.

The performance of above student during training was good, his/her punctuality, intense perseverance and initiative to the tasks assigned was appreciably substantial.

This certificate is being issued to him/her as required under his/her course curriculum/ academic requirement only and it shall not be used for any other purposes.

We wish him/her success in his/her future endeavor.

Yours sincerely,

  
(Jafar Ahemad Khan)  
Asst. Manager (HR)



स्वच्छ एवं राष्ट्र हित में ऊर्जा बचाये

Save Energy for Benefit of Self and Nation

पंजीकृत एवं केन्द्रीय कार्यालय : प्रथम तल, बी-9, कृतुस इन्स्टिट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली - 110016  
Registered & Corporate Office : 1<sup>st</sup> Floor, B-9, Outab Institutional Area, Katwaria Sarai, New Delhi - 110016  
Website - www.posoco.in, Email : posococo@posoco.in



N  
E  
2022

Late Shri. Vishnu Waman Thakur Charitable Trust's

**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hitendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. Arun B. ...  
...

Ref. No. - VIVA/VIT/1488/2022-22

Date: 14/06/2022

To,  
HR,  
A.J. Constructions,  
103 to 106, 1<sup>st</sup> Floor, Dhceeraj Heritage,  
Opp. Milan Mall, S.V. Road,  
Santacruz (West), Mumbai-400 054.

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil, Computer Engineering & MCA.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.


As a part of curriculum, the following student of Civil Engineering, SEM VI has to go for training from 15<sup>th</sup> June 2022 to 11<sup>th</sup> July 2022.

01. Mr. Rohit Subhash Pawar


This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 15<sup>th</sup> June 2022 to 11<sup>th</sup> July 2022.

With warm regards,

  
14-6-2022  
Principal



  
14/06/2022



Late Shri. Vidhwa Waman Thakur Charitable Trust's  
**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hritendra V. Thakur  
President

Mrs. Aparna P. Thakur  
Secretary

Dr. Arun K. ...  
Principal

Ref. No. VIVA/VT/ 1433 /2021-22

Date 03/06/2022

To,  
Manager,  
Shapoorji Pallonji And Company Pvt.Ltd.  
Contractor Bldg. Basement,  
Ramjiibhai Kamani Marg.,  
Ballard Estate, Fort,  
Mumbai-400 038.

Sub: Request for Internship.

Respected Ma'am/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.

As a part of curriculum, the following student of Civil Engineering, SEM VI has to go for training from 5<sup>th</sup> June 2022 to 4<sup>th</sup> July 2022.

01. Mr. Prasad Subhash Talekar- Roll No - 125

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your respected organization from 5<sup>th</sup> June 2022 to 4<sup>th</sup> July 2022.

With warm regards,

*[Signature]*  
3/6/2022



*[Signature]*

3/6/22

9004052391



Late Shri. Vajirao Arjun Thakur Chaudhary Trust  
**VIVA Institute of Technology**

Approved by AICTE, DTE and affiliated to University of Mumbai

Shri. Hitendra V. Thakur  
President

Shri. Apurva P. Thakur

Dr. Arun Kamali

Ref. No.: VIVA/VIT/ 285 /2021-22

Date: 17/12/2021

To,  
H.R.,  
Shapoorji Pallonji And Company Pvt.Ltd.  
Contractor Bldg. Basement,  
Ramji Bhai Kaitani Marg,  
Ballard Estate, Fort,  
Mumbai- 400 038

**Sub: Request for Internship.**

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.

As a part of curriculum, the following student of Civil Engineering, SEM VII has to go for training from 17<sup>th</sup> December\*2021 to 09<sup>th</sup> January\*2022.

01. Mr. Kaustubh Yashwant Raut

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 17<sup>th</sup> December\*2021 to 09<sup>th</sup> January\*2022.



# VIVA Institute of Technology

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hitendra V. Thakur  
President

Mr. Apurva P. Thakur

Dr. Arun Kumar  
Vice-Chancellor

Ref. No. VIVA-VIT/593/2021-22

Date: 17/12/2021

To,  
H.R.,  
Shapoorji Pallonji And Company Pvt. Ltd.  
Contractor Bldg. Basement,  
Rangitlha Kamant Marg,  
Ballard Estate, Fort,  
Mumbai- 400 038

## Sub: Request for Internship.

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.


As a part of curriculum, the following student of Civil Engineering, SEM VII has to go for training from 17<sup>th</sup> December 2021 to 09<sup>th</sup> January 2022.

01. Mr. Kaustubh Yashwant Raut


This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organisation from 17<sup>th</sup> December 2021 to 09<sup>th</sup> January 2022.

With warm regards,

  
Principal



  
17/12/2021



Shri. Hitendra V. Thakur

Principal

VIVA Institute of Technology

Ref No: VIVA/VIT/ Sec: 23

14/12/2021

To,  
M.E. Infra Projects Pvt Ltd.  
Behind Ramdas Bus Stop  
Western Express Highway  
Matipada, Nanganal (Vasai-401) 208

Sub: Permission for Final year B.E. Project Work

Respected Sir,

VIVA Institute of Technology established in the year 2000, is a system of education for creating dynamic leaders in the emerging academician, researchers and professionally who contribute to the society and the nation. The institute is affiliated to the Government of Maharashtra approved by AICTE, New Delhi and DTE, Mumbai. It offers courses in Mechanical, Electrical, Electronics & Telecommunication Engineering.

This institute believes in empowering young students through curriculum, students participation in R & D, industrial visits, internships and strong industrial interfaces.


As a part of curriculum, the students of Civil Engineering, Sem III are intended to do project in Plastic Road Technology. Students are working on project.

01. Ms. Manisha Gaikwad  
02. Mr. Sameer Kamble


3. Mr. Sudhesh Kargu  
4. Mr. Aniket Kelgandax

Kindly grant permission for doing their project at your plant.

With warm regards,

  
Principal  
Dr. Anur Kamat



  
Sameer P. Kamble  
1906301035



Late Shri. Vishnu Waman Thakur Charitable Trusts  
**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Harendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. Arun Kumar  
Principal

Ref. No. VIVA/NTL/S&S/2021/22

Date: 07/12/2021

To:  
Hon. Metropolitan Commissioner,  
Mumbai Metropolitan  
Region Development  
Authority (MMRDA),  
Bandra (East), Mumbai-400 051

Sub: Request for Internship.

Respected Madam Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.


As a part of curriculum, the following student of Civil Engineering, SEM VIII has to go for training from 8<sup>th</sup> December '2021 to 31<sup>st</sup> December '2021.

01. Mr. Mangesh Babruvahan Nannaware,

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 8<sup>th</sup> December '2021 to 31<sup>st</sup> December '2021.

With warm regards,

  
27.12.2021  
Principal  
Dr. Arun Kumar



  
7-12-21



Late Shri. Vishnu Waman Thakur Charitable Trust's

# VIVA Institute of Technology

Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hitenendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. Arun Kumar  
Principal

Ref. No. VIVA/VIT/ 834 /2021-22

Date: 30/11/2021

To,  
Managerial Department,  
Suraksha Smart City,  
Madhuban Township,  
Vasai (East).

### Sub: Request for Internship.

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.


As a part of curriculum, the following student of Civil Engineering, SEM VII has to go for training from 4<sup>th</sup> December '2021 to 04<sup>th</sup> March '2022 (Training Timing 4 pm. To 10 pm.).

01. Mr. Saurabh Ramesh Pandey.

This training will help him to understand practical aspects at work place.


Kindly grant permission for training in your reputed organization from 4<sup>th</sup> December '2021 to 04<sup>th</sup> March '2022 (Training Timing 4 pm. To 10 pm.).

With warm regards,

  
Principal

Dr. Arun Kumar



  
30/11/2021

8600557291



Late Shri. Vishnu Waman Thakur Charitable Trust's  
**VIVA Institute of Technology**

Approved by AICTE, DTE and Affiliated to University of Mumbai.

Shri. Hitendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. Arun Kumar  
Principal

Ref. No. VIVA/VIT/ 497 /2021-22

Date: 15/09/2021

To,  
Project Manager  
Egis India Consulting Engineers Pvt. Ltd.  
Mumbai Coastal Road Project, PMC-2  
4<sup>th</sup> floor Municipal (BMC) Printing Press Building,  
N.M.Joshi Marg Bakri Adla  
Hyculla (West) Mumbai-400 011, India.

Sub: Request for Internship.

Respected Madam/Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of society and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and strong industrial interface.


As a part of curriculum, the following student of Civil Engineering, sem VII has to go for training from 20<sup>th</sup> September 2021 to 20<sup>th</sup> October 2021.

01. Ms. Neha Suryakant salvi.

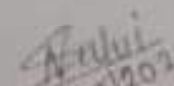
This training will help her to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 20<sup>th</sup> September 2021 to 20<sup>th</sup> October 2021.

With warm regards,

  
Principal 15/9/2021



  
15/09/2021



Late Shri. Vishnu Waman Thakur Charitable Trust  
**VIVA Institute of Technology**  
Approved by AICTE, DTE and Affiliated to University of Mumbai

Shri. Hitenendra V. Thakur  
President

Ms. Aparna P. Thakur  
Secretary

Dr. ...

Ref. No. VIVA/VIT/ 646 /2021-22

17/08/2021

To,  
Executive Engineer,  
M.C.G.M. Coastal,  
Sea Road, Mumbai.

Sub: Request for Internship.

Respected Madam Sir,

VIVA Institute of Technology established in the year 2009, nurtures a unique system of education for creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers and professionals who contribute to the development of India and the nation. The institute is affiliated to the University of Mumbai and approved by AICTE, New Delhi, and DTE, Govt. of Maharashtra. It offers courses such as Mechanical, Electrical, Electronics & Telecommunication, Civil and Computer Engineering.

This institute believes in empowering young students through rigorous curriculum, students participation in R & D, mentor system, value added programmes and industrial interface.

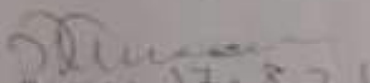
As a part of curriculum, the following student of Civil Engineering, SEM IV, is to go for training from 18<sup>th</sup> August '2021 to 18<sup>th</sup> September 2021.

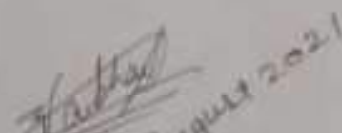
1. Mr. Vaibhav Mangesh Nar.

This training will help him to understand practical aspects at work place.

Kindly grant permission for training in your reputed organization from 18<sup>th</sup> August '2021 to 18<sup>th</sup> September 2021.

With warm regards,

  
Principal 17-8-21

  
17<sup>th</sup> August 2021

**A Project Report**  
**On**  
**“WASTE HEAT RECOVERY FROM AIR**  
**COMPRESSOR AND ITS UTILIZATION FOR**  
**REDUCING FUEL CONSUMPTION OF BOILER”**

Submitted in partial fulfillment of the requirements

For the degree of

**Bachelor of Engineering**

by

**Mr. Nishant Ramesh Chavan**

(MA1814)

**Miss. Granthali Sagar Dandgawhal**

(MAD1920)

**Mr. Nilesh Digambar Jadhav**

(MAD1945)

**Mr. Harsh Ashok Lokhande**

(MAD1979)

Supervisor

**Prof. Mansi Lakhani**



**DEPARTMENT OF MECHANICAL ENGINEERING**

Vishnu Waman Thakur Charitable Trust's

**VIVA INSTITUTE OF TECHNOLOGY**

University of Mumbai

(2021 – 2022)

## CERTIFICATE

This is to certify that the project entitled **“Waste heat recovery from air compressor and it's utilization for reducing fuel consumption of boiler”** is a bonafide work of **“Granthali Sagar Dandgawhal”** (Roll No: MAD1920), **“Harsh Ashok Lokhande”** (Roll No: MAD1979), **“Nishant Ramesh Chavan”** (Roll No: MA1814), **“Nilesh Digambar Jadhav”** (Roll No: MAD1945) submitted to the University of Mumbai in partial fulfillment of the requirement for the award of the degree of **“Bachelors of Engineering”** in **“Mechanical Engineering”**.

(Prof. Mansi Lakhani)  
Supervisor/Guide

(Prof. Mansi Lakhani)  
Faculty Advisor

(Prof. Niyati Raut)  
Head of Department

(Dr. Arun Kumar)  
Principal

## **Project Report Approval for B. E.**

This project report entitled “Waste heat recovery from air compressor and it's utilization for reducing fuel consumption of boiler” by “Granthali Sagar Dandgawhal”, “Harsh Ashok Lokhande”, “Nishant Ramesh Chavan”, “Nilesh Digambar Jadhav” is approved for the degree of “Bachelor of Engineering” in “Mechanical Engineering”.

Examiners

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

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

**Date:**

**Place:** Virar

LUPIN LIMITED

T-142, M.I.D.C. Tarapur via. - Boisar  
Taluka & Dist. Palghar, Maharashtra - 401 506  
Tel: +91-2525-270192, 270193, 270194



Ref. No. LL\TRP\22-03\46

Date: 24/03/2022

## To Whomsoever It May Concern

This is to certify that the following students "Granthali Sagar Dandgawhal" (Roll No: MAD1920), "Harsh Ashok Lokhande" (Roll No: MAD1979), "Nishant Ramesh Chavan" (Roll No: MA1814), "Nilesh Digambar Jadhav" (Roll No: MAD1945) of B.E. (Mechanical Engineering) of VIVA Institute of Technology, Virar have completed their Industrial Project titled **"WASTE HEAT RECOVERY FROM AIR COMPRESSOR AND IT'S UTILIZATION FOR REDUCING FUEL CONSUMPTION OF BOILER"** under mentorship of my firm dated from **August 2021 to March 2022** during the academic year 2021-2022 as partial fulfillment of the B.E. (Mechanical Engineering) course. The project report is result of efforts and endeavors. The project is found worthy acceptance.

We wish good luck for their future.

With Regards,

Dinesh More  
Manager – Human Resources



## **Declaration**

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

-----  
(Signature)  
(Nishant Ramesh Chavan - MA1814)

-----  
(Signature)  
(Granthali Sagar Dandgawhal-MAD1920)

-----  
(Signature)  
(Nilesh Digambar Jadhav – MAD1945)

-----  
(Signature)  
(Harsh Ashok Lokhande - MAD1979)

Date:

## Abstract

Improving energy efficiency becomes a main challenge for all industrial energy systems. This challenge involves an improved recovery of wasted heat generated by several industrial processes. Heat energy saving is one of the key matters from view point of fuel consumption and for the protection of global environment. So, it is necessary that a significant and concrete effort should be made for conserving energy through waste heat recovery too. The main objective here is to study "Waste Heat recovery system of air compressor". An attempt has been made to utilize waste heat from air compressor. This heat can be used for number of domestic and industrial purposes. In minimum constructional, maintenance and running cost, this system is much useful for industrial purpose. It is valuable alternative approach to improve overall efficiency and reuse the waste heat. The study has shown that such a system is technically feasible and economically viable.

Waste heat is generally the energy associated with the waste streams of air, gases and liquids that leaves the boundary of the system and enter into environment. Waste heat which is rejected from a process at a temperature enough high above the ambient temperature permits the recovery of energy for some useful purposes in an economic manner. The essential quality of heat is not the amount but its value. Waste heat recovery and utilization is the process of capturing and reusing waste heat for useful purposes. Not all waste heat is practically recoverable. The strategy of how to recover this heat depends on the temperature of the waste heat sources and, on the economics, involves behind the technology incorporated.

Waste heat can be recovered in number ways such as from vapor absorption system, by pre heating boiler feed water, pre heating boiler air, operation of vapor absorption type chillers, hot water generation for processor, etc. The study is done to determine waste heat recovery generated by air compressor for utilization in reduction of fuel consumption. This approach is considered cost effective and results in increase of overall efficiency of boiler.

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## Abbreviation

HRU - Heat Recovery Unit

WHR - Waste Heat Recovery

# **Chapter 1**

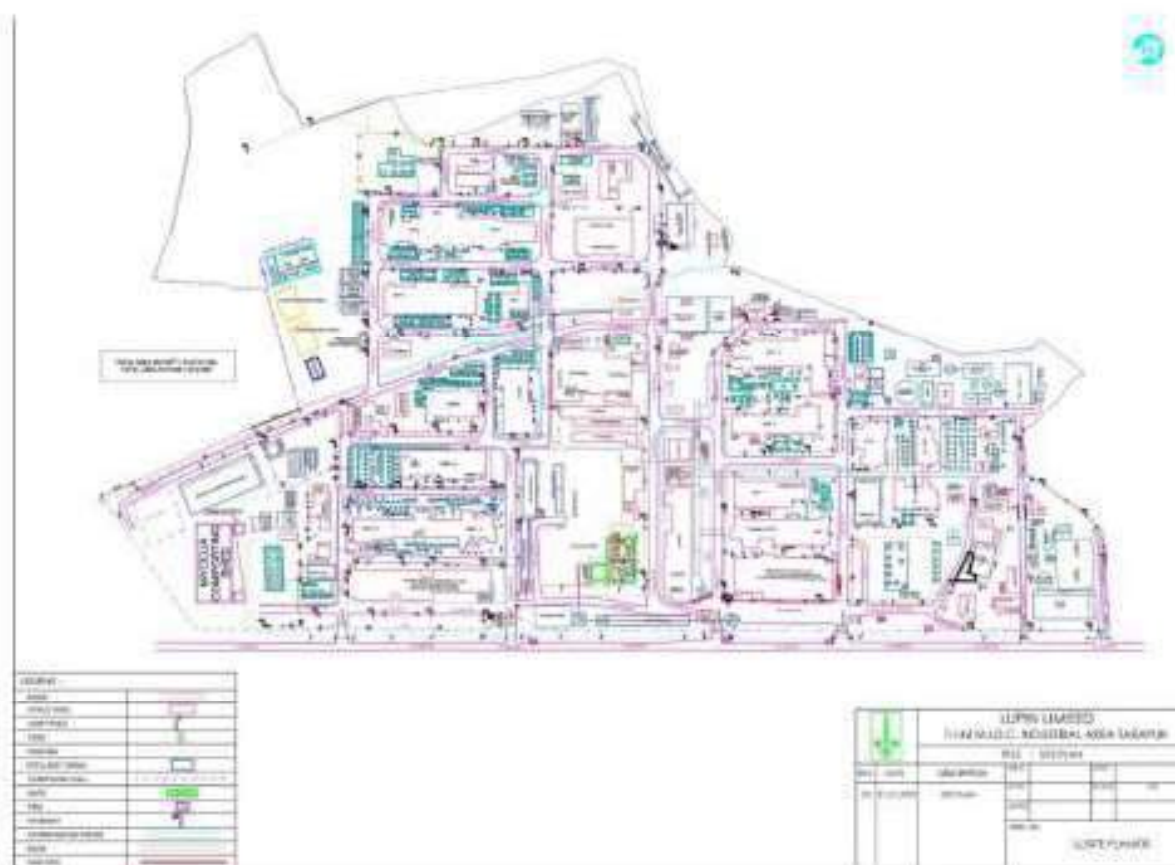
## **Introduction**

The growing trend of increases in fuel prices over the past decades as well the rising concern regarding global warming, engineering industries are challenged with the task of reducing green-house gas emissions and improving the efficiency of their sites. In this regard, the use of waste heat recovery systems in industrial processes has been key as one of the major areas of research to reduce fuel consumption, lower harmful emissions and improve production efficiency.

Waste heat recovery is essential for increasing energy efficiency in the chemical process industries (CPI). Presently, there are many WHR methods and technologies at various stages of implementation in petroleum refineries, petrochemical, chemical and other industry sectors. Increasing energy costs and environmental concerns provide strong motivation for implementing more and newer methods and technologies for WHR. Most of the literature on this topic is based on individual methods and techniques, but there is a need for an integrated approach. Waste heat is energy that is rejected to the environment. It arises from equipment and operating inefficiencies, as well as from thermodynamic limitations on equipment and processes. Often, part of waste heat could potentially be used for some useful purpose. At present, about 20 to 50% of energy used in industry is rejected as waste heat.

## 1.1 Industry Background

Lupin story began in 1968 when Dr. Desh Bandhu Gupta founded the company in Mumbai to harness the power of science in improving health outcomes. Lupin has grown and expanded into new areas and regions, manufacturing drugs that extend the promise of good health to communities across the globe. This company majorly produces Active Pharmaceutical Ingredients (API). Lupin has expanded and grown manifold since its inception in 1968. Today, Lupin employs 20,000+ members in 11 countries across six continents, enabling safe and reliable delivery of medicines to our patients across 100+ countries. Lupin Limited provides several opportunities for young graduates as well as experienced professionals for accelerated career growth.



*Fig 1.1 Site plan*

### 1.1.1 Utility Plant

Lupin Tarapur plant produces Active Pharmaceutical Ingredients (API). To maintain the chemical processes various utilities are being operated which consist of compressors, air condensers, evaporators, chillers, boilers, etc. out of which air compressor is a major power consumer. It consumes 13% of the overall power at Tarapur site. A Single centrifugal air compressor at the T1 section consumes 550 KW and generates compressed air with a pressure of 2 kg/cm<sup>2</sup>. Of the total power consumed by the air compressor, 72-75% is converted to heat which is dissipated to the atmosphere by cooling towers. This waste heat is can be recovered in various ways and utilized to reduce the operational costs for energy.



*Fig 1.2 – T1 Utility*

## Chapter Summary

This chapter contains introduction of the project at Lupin pharmaceutical company. It also gives us a background knowledge about the company and the utility in which the project is carried out.

## Chapter 2

### Literature Review

#### 2.1 Review

**Farhat, O., et. al, (2022) [1].** This paper showcase a recent and complete systematic comprehensive review along with critical analysis and potential recommendations related to waste heat recovery (WHR) methodologies and applications. In methodologies, heat exchangers, Rankine cycle and thermoelectric generators are studied. Moreover, applications of WHR are discussed in automotive, and in both residential and industrial zones. Studies show that the optimization of heat recovery systems lead to significant magnitudes of energy savings. On the other hand, hybrid heat recovery systems prove to be the most trending research subject nowadays. For future work, the negative effect of backpressure should be taken into consideration when recovering energy from exhaust gases of engines and power generators, and more importance should be given to hybrid system.

**Abdelkareem, et. al, (2022) [2].** This paper explains the Heat pipe-based recovery system, Heat pipes are becoming gradually more popular as a passive heat transfer technology due to their effective performance. The heat pipe heat exchanger (HPHE) is an effective tool in recovering

waste heat. The present paper provides a comprehensive review of the state-of-the-art background of heat pipe for various waste heat recovery systems. The waste heat resource, type and description of the employed heat pipe, and the working fluid for each application are studied comprehensively. Internal and external thermal modeling techniques, theories, and methodologies are presented for various applications. Based on the energy efficiency improvement, economic investment, and environmental impacts, the employing of HPHE in different applications is a successful and promising technology. Finally, the current challenges and future perspectives related to the use of the heat pipe for WHR in various applications are introduced in the paper.

**Opoku, R., et. al, 2020[3]** established that, the maximum heat recovered rate was obtained when the temperature difference between the outlet of the hot and cold fluid of the STC-HX was minimum. The heat recovery part compressor to about 54% & the total 163Kw power consume & two compressor and their blowers. This implies energy saving of 710mh. Per year for compressor runtime & 8000h, annually. The effectiveness of the HRU was determined to be 57%. The analysis further share that the implementation of the heat recovery System yields a benefit to - cost ratio of 3.5 which is US \$33,800 for annual energy cost saving for the company.

**K. Roth et. al, 2020[4]** studied a promising technique to improve the peak load capacity of such power plants is to integrate transient external waste heat sources into the cycle. Feed-water pre-heaters are one favorable location to integrate the external heat into the water-steam cycle. Since the addition of external energy causes less steam consumption in the high-pressure and low-pressure pre-heaters, one or more steam extraction lines can be closed. By doing this, the steam can be used for additional power generation in the steam turbine. In the simulations, two different kinds of external heat sources have been integrated into the cycle: a fast-starting gas turbine and an industrial steam line.

**Kostowski, W., et. al, (2019) [5].** This document deals with waste heat recovery from a natural gas compressor. Possible options of energy recovery include a) direct heat recovery with optional thermal energy storage, b) conversion of waste heat to electricity via a recovery rate, c) integration of gas expanders into the gas supply line in junction with waste heat recovery. The studied options were related to the possible pilot plant design bottoming 1 or 2 engines with a waste heat recovery system. A recent review on waste heat recovery methodologies and applications: Comprehensive review, critical analysis and potential recommendations.

**Valenti, G., Valenti, A., & Staboli, S. (2019) [6].** Waste heat recovery plays a major role among the advances that can lead to potential savings in these industries. The present work proposes an air compressor that generates industrial compressed air in a novel manner only by recovering heat from exhaust gases, not by consuming electric power and employing readily available technologies transferred from other sectors. The proposed system is an externally-heated open-loop Brayton cycle operating with air in which a fraction of the compressed air from the compressor is delivered as a product, while the remainder is heated up and processed in the expander. In its turn, the expander drives only the compressor and not also an electric generator as in conventional cycles. The system is simply realized by combining a single- or a two-stage turbocharger from marine reciprocating engines and a recovery heat exchanger. Ultimately, with respect to conventional plants, the system is a simpler technology operating with a harmless fluid, requiring a lower cooling power and a smaller footprint.

**Jouhara, H. et, al, 2018[7]** High temperature WHR consists of recovering waste heat at temperatures greater than 400 °C, the medium temperature range is 100–400 °C and the low temperature range is for temperatures less than 100 °C. Usually most of the waste heat in the high temperature range comes from direct combustion processes, in the medium range from the exhaust of combustion units and in the low temperature range from parts, products and the equipment of process units

**N Nallusamy, et. al, 2015[8]** stated that Air pre-heater and economizer are heat transfer surfaces in which air temperature and water temperature are raised by transferring heat from other media such as flue gas. Hot air is necessary for rapid combustion in the furnace and also for drying coal in milling plants. So, an essential boiler accessory which serves this purpose is air pre-heater. The air pre-heater is not essential for operation of steam generator, but they are used where a study of cost indicates that money can be saved or efficient combustion can be obtained by their use. The decision for its adoption can be made when the financial advantages is weighed against the capital cost of heater. The efficiency of the boiler increases with the increase in the temperature of the combustion air used in the furnace. This is achieved by the increased temperature of the flue gas in the air preheater and economizer zone. This paper deals with the different ways to obtain the maximum heat from the flue gas travelling through the air preheater and the economizer zone to improve the boiler efficiency.

**Mohtasham, J., 2015[9].** A majority of the communities around the world rely heavily on oil, natural gas and coal for their energy needs. These fuels draw on lots of resources that will eventually diminish, which in turn makes them too expensive or too environmentally damaging

to recover. This review article discusses the advantages and disadvantages of renewable energies; therefore, based on the benefits of these energy resources, the use of renewable energies, instead of, fossil fuels will be a good solution for the control of the environmental, social and economic problems of our communities.

**SV Naidu et. al, 2013 [10]** conducted the study at Andhra University recovery by CC.S Reddy, and National University of Singapore. It consists of a comprehensive review of save WHR methods and techniques applicable in Petro-chemical industries and refineries. A detail economical study required to decide the best WHR system particular plant by considering following such as energy cost, plot size, capital cost pay back criterion, Operation, reliability and process safety issues.

**Safaei, H., Keith, D. W., & Hugo, R. J.,2013 [11]** Presented a case study on large scale penetration of renewable energies such as wind and solar into the electric grid is complicated by their intermittency. Energy storage systems can mitigate these fluctuations by storing off-peak energy for use at peak-demand times. Compressed air energy storage (CAES) is one of the most promising storage technologies due to the large amount of energy that can be stored at an economical cost. We evaluate the feasibility of improving the economics of CAES by distributing compressors near heat loads to enable recovery of the heat of compression to supply low-grade heating needs such as district heating. Distributed CAES (DCAES) is more efficient; however, it has higher capital costs due to the compressed air pipeline required between distributed compressors and the storage site. We evaluate the project economics of DCAES in a hypothetical scenario with a variable electric and heat load. The size and dispatch of a generation fleet composed of a wind farm, CAES or DCAES plant and conventional gas turbines are optimized to satisfy the annual electricity load at an hourly resolution at the lowest total cost. We find that the total cost of supplying heat and electric loads is less expensive with DCAES given a 50 km pipeline when fuel prices exceed \$7.6/GJ. The cross-over fuel price depends on the distance as it drives the capital cost of the pipeline. The minimum effective fuel price required for economic superiority of the DCAES system is \$7.0/GJ and \$8.3/GJ at pipeline lengths of 25 and 100 km, respectively.

**Patil, A. D., Baviskar, P. R., Sable, M. J., & Barve, S. B. (2012) [12].** Energy-saving and efficiency are the key issues of power generation systems not only from the viewpoint of fuel consumption but also for the protection of the global environment. Flue gas ducts are the major parts of the oil-fired power plant, which are used to exhaust flue gases from the boiler. This paper presents an approach for the optimization of economizer design. The aim of this work is

to develop a methodology that finds optimization of economizer design. CFD analysis is used to compare the new economizer design with traditional strategies the results of the simulation indicate the uniform flow of gas over tubes after adding the vanes at the inlet of the module. The results were compared with site data and showed good agreement. CFD has earned a reputation of troubleshooting technique par excellence and extensively in testing out new design variant. The results of the CFD analysis can be used in enhancing the heat transfer in design of different type of economizer

**Esa K. Vakkilainen1 Pekka Ahtila ,2011[13]** presented a case study on recovery boiler mass and energy balances are needed for the performance testing of recovery boilers, mill energy wide control systems, and in calculating the air emission data. Typically, recovery boiler balances are mainly based on 1996 TAPPI publication "Performance Test Procedure: Sodium Base Recovery Units", the use of which is problematic in Europe because of its view that the losses from the recovery of process chemicals are counted when determining the recovery boiler steam generation efficiency. A low efficiency leads to taxation and legislative problems in some European countries. There is a newly accepted European standard for steam generator acceptance tests: EN 12952-15:2003 "Water-tube boilers and auxiliary installations - Part 15: Acceptance tests". This paper examines how the standard could be applied to recovery boilers to find out the net efficiency which is shown to be approximately the same as for other biomass boilers, not 10% lower. A new and more accurate method to calculate losses from convection and conduction is discussed. In addition, a suggestion on how to handle borate auto cauterization in the recovery boiler furnace is made.

**Su Thet Mon Than, Khin Aung Lin, Mi Sandar Mon,2008[14]** produced this paper to assist anyone with some general technical experience, but perhaps limited specific knowledge of heat transfer equipment. A characteristic of heat exchanger design is the procedure of specifying a design, heat transfer area and pressure drops and checking whether the assumed design satisfies all requirements or not. The purpose of this paper is how to design the oil cooler (heat exchanger) especially for shell-and-tube heat exchanger which is the majority type of liquid-to-liquid heat exchanger. General design considerations and design procedure are also illustrated in this paper and a flow diagram is provided as an aid of design procedure. In design calculation, the MATLAB and AutoCAD software are used. Fundamental heat transfer concepts and complex relationships involved in such exchanger are also presented in this paper. The primary aim of this design is to obtain a high heat transfer rate without exceeding the allowable pressure

drop. This computer program is highly useful to design the shell-and-tube type heat exchanger and to modify existing design.

**Abdul Khaliq et. al, 2007[15]** stated that the performance of an intercooled reheat regenerative indirect fired air turbine based combined heat and power system using the first and second law of thermodynamics. The energetic and exergetic efficiencies have been defined. The effects of overall pressure ratio, cycle temperature ratio, pressure losses and process steam pressure on the energetic and exergetic efficiencies have been investigated. The results indicate that the first-law efficiency is approximately independent of pressure losses, but the second-law efficiency and the power to heat ratio reflects the fact that the higher-pressure drops degrade the thermodynamic performance significantly. Energetic efficiencies are approximately independent of process steam pressure, but the exergetic efficiency increases with the same Concepts and realization of microstructure heat exchangers for enhanced heat transfer

**J.J. BrandnerE.AnurjewL. BohnE.HansjostenT. HenningU.Schygulla,2006[16]** stated that the Microstructure heat exchangers have unique properties that make them useful for numerous scientific and industrial applications. The power transferred per unit volume is mainly a function of the distance between heat source and heat sink—the smaller this distance, the better the heat transfer. Another parameter governing for the heat transfer is the lateral characteristic dimension of the heat transfer structure; in the case of microchannels, this is the hydraulic diameter. Decreasing this characteristic dimension into the range of several 10s of micrometers leads to very high values for the heat transfer rate.

**Wienese, A., 2001[17].** Stated that the boiler efficiency does not only depend on the boiler configuration and operation but also on the fuel being used. This paper describes a typical sugar factory boiler, the analysis of boiler fuel and discusses the calculation of boiler efficiency. The figures that are used are generic and are not to be taken definitively.

**Wilson, C. R. (1982) [18].** This paper describes the development of modern boiler economizers, and gives information on many current applications. Details are given of the types of extended surface used, and the reasons for their selection.

**Donnelly, J. B. (1980) [19].** This paper states utilization of auxiliary boilers. With the deteriorating quality of fuels, the sizes of waste-heat units will have to be increased. This means higher costs and increased maintenance unless more attention to initial planning and design. There are two classes of auxiliary boiler, those that supply steam on motor ships for cargo heating, pumping, and other services, and those that can power main propulsion units as "get

you home" facility. Among the types of boiler discussed are the Monomall and the Aalborg water-tube boilers.

**Ehsan, M. [20]** This paper gives a brief overview of energy saving through enhancements in boiler. As its proven that steam is a widely used working fluid consumed in various engineering applications. Typically, steam is used for producing mechanical work (e.g. turbine), transferring heat energy. Steam is produced in boilers (steam generators), which may be of Fire-tube or Water-tube type, according to the required pressure, temperature, quality and quantity (load on boiler). Fig. 1 represents the schematic diagram of a boiler system. Generally, pipelines are used to transfer the steam from the boiler to the apparatus that consumes steam. Different steam consuming apparatus may be used for different applications and the physical location of the apparatus may be close or far away from the boiler. From energy efficiency point of view, a well-designed steam consumption apparatus which is a part of a thermal system can be expected to provide a good overall efficiency as long as the steam supplied to it is produced efficiently. This can be achieved by saving energy mainly by the steam generation process in the boiler is efficient and the steam transmission process in pipeline is efficient (i.e. energy losses in the pipelines in low).

## Chapter Summary

This chapter contains twenty literature review on different topics which are related to the project such as waste heat recovery, energy saving, improvising efficiency and more.

## **Chapter 3**

### **Problem Definition**

#### **3.1 Problem Statement**

Three centrifugal compressors of two stage are operated at Lupin Tarapur for generation of compressed air for the process requirements. These compressors individually consume about 550 KW of electrical power to meet the compressed air requirements. As a principle, about 70% of power in air compressor is converted in form of heat and the rest is utilized for actual compression of air. The energy which is converted to heat is eventually dissipated to atmosphere through cooling towers. However, this waste heat can be converted to a usable form and be used to reduce the fuel/power consumption in the factory

#### **3.2 Objectives:**

Objective of the project are as following:

- To design a system to collect the waste heat and pass on to the feed water and pre heat the boiler feed water
- To reduce cooling water flow in compressor intercooler
- To reduce fuel (Natural Gas) consumption.
- To reduce overall expenditure of utility operation

## **Chapter Summary**

This chapter give a brief idea about the problem statement which is to be solved by the end of the project. It also gives us the target of objective to be achieved by the end of the project.

## Chapter 4

### Methodology

#### 4.1 Former system:

The fig 4.1 shows the existing design of an air compressor which generates compressed air which is later used for fermentation process. The process in which this compressed air is carried gives out latent heat which usually goes to waste.

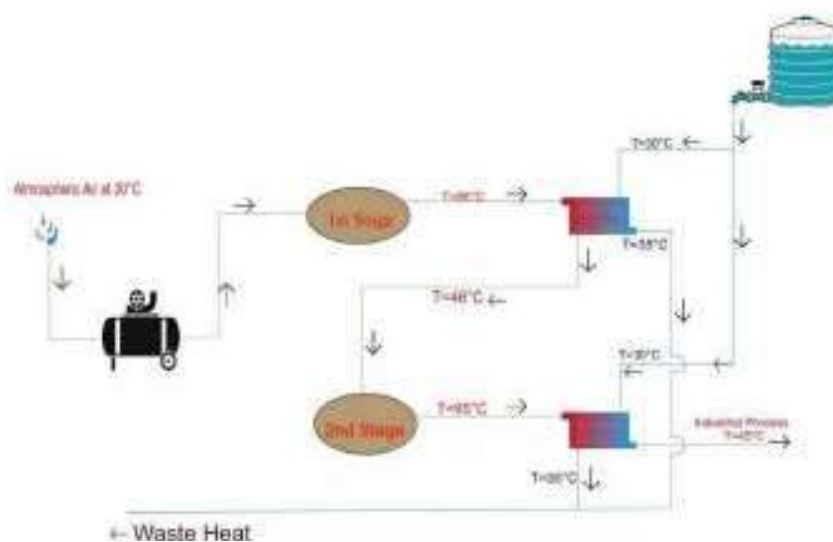


Fig 4.1 Flowchart of former process

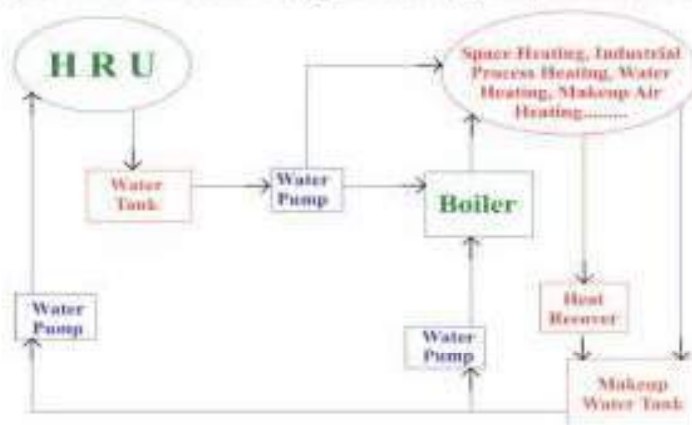
The process is as follows:

1. The atmospheric air is sucked by the compressor (1st stage) which is then compressed, due to this pressure is increased resulting in increase of temperature. This then enters the intercooler which is a shell and tube type of heat exchanger where the heat from compressed air is absorbed in cooling water and the temperature of compressed air decreases but the temperature of water increases since heat is absorbed and this water is fed to cooling towers.
2. After the air is cooled in intercooler it enters the 2nd stage compressor. The air is further compressed due to the process requirement which results in increase of heat. This air (with certain amount of heat) enters aftercooler which is a shell and tube type of heat exchanger where the temperature is absorbed and water is fed to cooling tower and the obtained compressed air is supplied for fermentation process.
3. The water given out by the heat exchangers that cools the compressed air is exerted in outdoor surroundings which usually goes to waste and can be termed as waste energy.

Due to this waste of heat a lot of fuel is lost eventually leading to increase in expenditure. This can be avoided by utilizing the waste heat by adding a HEAT RECOVERY UNIT (H.R.U) which can be used to avoid waste of heat and channel the heat for various industrial purposes. This project comprises of using H.R.U. to collect heat and transfer it to the condensate tank which then can be used for preheating the boiler feed water used which will eventually lead to saving time and fuel used and thus it is cost efficient.

**Following is the proposal HRU setup:**

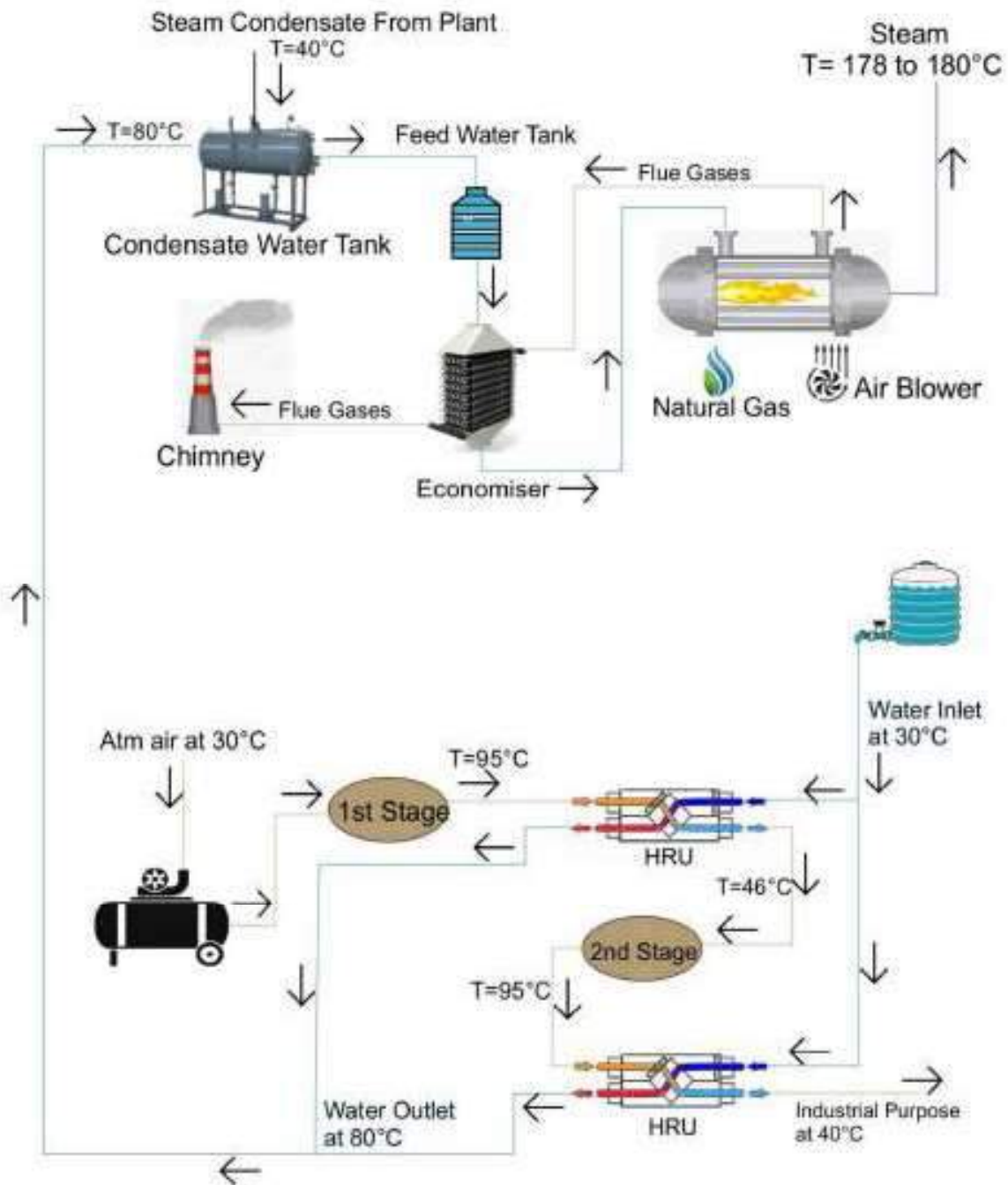
The proposal to install a heat recovery unit for centrifugal process air compressors which will conserve the energy by heating up soft-water which will be further sent to the oil-fired boiler and agro-waste boiler and thus reduce natural gas consumption and increase the steam fuel ratio.



*Fig 4.2 Schematic of thermal recovery*

#### 4.2 Revised system:

The fig 4.2 shows the flowchart of proposed methodology heat can be utilized with the help of H.R.U. through estimated temperatures of how much heat can we actually utilize and the estimated path of the heat carried.



*Fig 4.3 Flowchart of proposed methodology*

The process is as follows:

1. The atmospheric air is sucked by the compressor (1<sup>st</sup> stage) which is then compressed, due to this pressure is increased resulting in generation of heat which then enters H.R.U. (intercooler) it consists of water tubes which absorbs the heat from compressed air and the temperature of compressed air decreases but the temperature of water increases since heat is absorbed and this water is taken to condensate tank.



*Fig 4.4 Air compressor attached to HRU*

2. After the air is cooled in intercooler it enters the 2<sup>nd</sup> stage compressor in which it is again compressed due to requirement again this results in increase of heat due to increase in pressure then again, this air (with certain amount of heat) enters H.R.U. (aftercooler) the same process is carried out in aftercooler as of intercooler then the compressed air is used in fermentation process.
3. As of the water (from both H.R.U.s) after entering the condensate tank it is taken to feed water tank then this preheated water enters the economizer which generates heat from the hot flue gases given out by the fire tube boiler.
4. Which will add more heat to the water and then it enters the boiler now the boiler requires less fuel to convert the water into steam since water is preheated then the flue gases generated are again taken to economizer and the cycle continues and the rest remaining unused flue gases are exerted through chimney which is situated at a certain height above ground level.

## 4.3 System Component and Specifications:

### 4.3.1 Air Compressor

In the centrifugal compressor, the impeller increases the speed of the working fluid (gas or air) by converting the kinetic energy of the air/gas into speed. And the diffuser further converts the speed of the air or gas into pressure energy. The radial centrifugal compressors have a higher high-pressure ratio at the low flow rate.



*Fig 4.5 Air Compressor*



*Fig 4.6 Air Compressor connected to HRU*

*Table 4.1 Compressor details*

Frame	Model	Capacity (ACFM)	Pd (PSIG)	Serial No.
2A	C50MX2	4800	46	M90-5721

### 4.3.2 HRU (Heat Recovery Unit)

Heat Recovery Units in Air Compressors are specially designed coolers which recover  $>70\%$  of available thermal energy and put it back for useful work like heating air or water. Typical uses for recovered heat include supplemental space heating, industrial process heating, water heating, makeup air heating and boiler makeup water preheating. Hot water from HRU can be used in central heating or boiler systems, industrial cleaning processes, plating operations, heat pumps, laundries, or any other application where hot water is required.



*Fig 4.7 Newly installed HRU*



*Fig 4.8 Side view of HRU*



*Fig 4.9 Outlet of HRU*

*Table 4.2 Standard design features of HRU:*

HRU Package Feature	
Data Monitoring	Stage Data Package
Coolers	Heat Recovery coolers
Cooler Feature	
Confirming Standards	ASME & TEMA-C
Cooler Water Temp. Diff.	40-50°C
Water Flow Rate	6-12 m <sup>3</sup> /hr.
Fouling (Tube Side)	0.0001
MOC	
Shell	SA 516 Gr. 70
Fins	Aluminum
Corrosion Allowance	3mm (Shell Side)
Tubes	SS 304

### 4.3.3 Boiler

SHELLMAX is a horizontal, three pass, fully wet back, smoke tube steam boiler, with reversal chamber. SHELLMAX consists of single shell made from boiler quality plates. Inside this shell, furnace made of boiler quality plate is fitted. A nest of flue tubes surrounds this furnace. Water outside the furnace & flue tubes receives heat to raise the temperature of water. The water near the furnace surface and near the flue tube surfaces gets heated and moves upwards. The cooler water moves downwards.



*Fig 4.10 Horizontal fire-tube Boiler*



Fig 4.11 economiser



Fig 4.12 PID

## 4.4 Calculations:

### 4.4.1: Indirect losses

Dry bulb temp =  $32^{\circ}\text{C}$

Wet bulb temp =  $28.5^{\circ}\text{C}$

Humidity Ratio = 77.5%

Relative Humidity = 68%

Boiler =  $208^{\circ}\text{C}$ , economizer =  $140^{\circ}\text{C}$

ambient temp at boiler =  $33^{\circ}\text{C}$

Flue gas  $O_2 = 3.5\%$ ,  $CO = 0.5\%$ ,  $CO_2 = 14\%$

Natural gas  $C = 74\%$ ,  $N_2 = 25\%$ ,  $S = 0$ ,  $O_2 = 0$ ,  $H_2 = 25\%$ ,

(The above data is accurate and obtained through company and pre observed by engineering department)

Theoretical air:

$$= \frac{4.35 \left[ \left[ \frac{8}{3} \times C + 8H_2 + 5 \right] - O_2 \right]}{100} = 4.35 \left[ \left[ \frac{8}{3} \times 74 + 8 \times 2.5 + 0 \right] - 0 \right]$$

$$= 9.454 \text{ kg of air / kg of Fuel.}$$

Excess air:

$$= \frac{O_2\%}{21 - O_2\%} \times 100 = \frac{3.5}{21 - 3.5} \times 100 \quad EA = 20\%$$

Actual mass of air supplied:

$$= \left[ 1 + \frac{EA}{100} \right] \times TA = \left[ 1 + \frac{20}{100} \right] \times 9.454 = 11.34 \text{ kg/kg of fuel}$$

(1) Heat loss due to dry flue gases:

$$L_1 = \frac{m \times C_p \times (TF - Ta)}{GCV \text{ of fuel}} \times 100 \text{ m} = \text{mass of A} \cdot A.S + 1 - (M + 9H_2)$$

$$= 11.34 + 1 - (0 + 9 \times 2.5) \text{ m} = 34.84 \text{ kg/kg of fuel}$$

a) for Boiler:

$$= \frac{34.84 \times 0.23(208 - 38)}{8350} \times 100 = 16.79\%$$

b) For Economizer:

$$= \frac{34.84 \times 0.23(140 - 33)}{8350} \times 100 = 10.26\%$$

(2) Heat loss due to evaporator of water:

$$L_2 = \frac{9H_2[584 + CP(TF - TA)]}{GCV} \times 100$$

a) For Boiler:

$$= \frac{9 \times 0.025[584 + 0.29(208 - 38)]}{8350} \times 100 = 1.68\%$$

b) For Economizer:

$$= \frac{9 \times 0.025[584 + 0.29(140 - 33)]}{8350} \times 100$$

$$= 1.63\%$$

(3) Heat loss due to moisture ( $L_3$ ):

Since  $m = 0$ ,

(a) Boiler = 0%

(b) Economizer = 0%

(4) Heat loss due to moisture Preheated air

$$L_4 = \frac{A_A S \times H \cdot F \cdot \times CP(TF - TA)}{GCV} \times 100$$

HF = Humidity factor from psychometric chart

(a) Boiler

$$= \frac{11.34 \times 0.023 \times 0.23(208 - 39)}{8350} \times 100 = 0.1278\%$$

(b) Economizer

$$= \frac{11.34 \times 0.023 \times 0.23(140 - 33)}{8350} \times 100$$

$$= 0.077\%$$

5] Heat loss due to partial Converter

$$L_5 = \frac{\%C_0 \times C}{\%C_0 + (\%CO_2)} \times \frac{5744}{GCV} \times 100 = \frac{0.5 \times 74}{0.5 + 14} \times \frac{5744}{8350} \times 100 = 1.75\%$$

6] Heat loss due to radiator

a] Boiler = 0.5%

b] Economizer = 0.5%

7] Other losses

a] Boiler = 2%

b] Economizer = 2%

Indirect Losses: -

$$\begin{aligned} & \text{a] Boiler} \\ & = 100 - [16.79 + 1.68 + 0.1273 + 1.75 + 0.5 + 2] = 77.15\% \end{aligned}$$

b] Economiser

$$\begin{aligned} & = 100 - [10.26 + 1.63 + 0.077 + 1.75 + 0.5 + 2] = 83.78\% \quad \therefore 83.78 - 77.15 \\ & = 6.63\% \end{aligned}$$

The economizer increased 6.63% efficiency of Boiler.

#### **4.4.2: Boiler-Fuel consumption.**

Boiler Capacity = 10 TPH

Steam pressure =  $8 \text{ kg/cm}^2$

Steam Temp =  $169.61^\circ\text{C}$

Feed water temp =  $85^\circ\text{C}$

GCV of fuel = steam =  $2767.5 \text{ kJ/m}^3\text{scm}$

enthalpy of feed water =  $356.82 \text{ kJ/kg} = 85.25 \text{ kcal/kg}$

enthalpy of saturated steam =  $2767.5 \text{ kJ/kg} = 661.44 \text{ kcal/kg}$

(The above data is accurate and obtained through company and pre observed by engineering department)

Fuel Required

= Boiler capacity  $\times$  [steam enthalpy - Feed water enthalpy]/

[Boiler efficiency  $\times$  fuel G.C.V. ]

$$= \frac{10,000 \times [661.44 - 85.25]}{0.8 \times 8350} = 831.17 \text{ kg/hr}$$

Fuel Require for 10TPH bailer =  $831.178 \text{ kg/hr}$ .

#### 4.4.3: Cost Savings calculation:

Total output of HRU at  $45^{\circ}\text{C}$   $\Delta T = 120\text{kcal/day}$

(Ambient temp i.e.  $30^{\circ}\text{C}$  to  $75^{\circ}\text{C}$  )

(1) OIL fired Boiler

(a) Savings due to hot water (Natural gas)

Hot water Consumption =  $75\text{kcal/day}$

$$= 3.125\text{kcal/Hr}$$

Energy recovered per hour =  $3125 \times 1 \times 45$

$$\Delta T = 45^{\circ}\text{C}$$

$$= 1,40,625.\text{kcalC/hr}$$

GCV of natural gas =  $12500\text{kcal/kg}$

$$\text{Fuel saved} = \frac{140625}{12500 \times 0.85} = 13.235\text{ kg/hr (natural gas)}$$

Cost of natural gas = ₹ 24.65 perkg.

Savings per year =  $13.235 \times 24.65 \times 24 \times 365 = 28,57,950\text{₹/ year.}$

(b) Agro based boiler

Hot water consumption =  $45\text{kcal /Day}$

$$= 1.875\text{kcal/Hr.}$$

Energy recovered per hour =  $1875 \times 45$

(considering  $\Delta T = 45^{\circ}\text{C}$  )

$$= 84,375\text{kcal/Hr}$$

$$\begin{aligned}\text{Fuel saved} &= \frac{84.375}{12500 \times 0.93} \text{ kg/hr} \\ &= 7.26 \text{ kg/hr}\end{aligned}$$

$$\begin{aligned}\text{Saving per year} &= 7.26 \times 24.65 \times 24 \times 365 \\ &= 15,67,262.90 \text{ ₹ /year}\end{aligned}$$

Cost of natural gas =  $24.65\text{Rs/kg}$

Efficiency of Agro based boiler = 93%

Agro waste ratio saving at lupin = 45%

Total Heat saving.

$$A + B = 28,57,950 + 15,67,262.90$$

$$= 44,25,567.33 \text{ ₹/year}$$

#### C] Cooling water flow reduction

Heat will be removed from soft water that's why there is no need of Cooling water for process air compressor thus additional Savings.

Line size of 1<sup>st</sup> stage Inter-cooler = 2"

Line size of 2<sup>nd</sup> stage Inter-cooler = 2"

Line size of oil cooler = 3"

Total reduction in cooling water flow  $61 \text{ m}^3/\text{hr}$

Total Savings = 1,87,639 ₹/year

Cooling water cost taken as  $0.35 \text{ ₹/m}^3$

Total saving for this project.

$$= A + B + C = 28,57,950 + 15,67,262.90 + 1,87,639$$

$$= 46,13,206.33 \text{ ₹/ year.}$$

Cost to make this project.

(1) Heat recovery unit

Cost - 25,00,000 ₹/quantity.

(2) Piping / Fabrication Cost

Cost = ₹1,00,000

Total cost to make this project of HRU = ₹26,00,000.

#### Payback

cost to make project = ₹26,00,000

Total saving per year = 46,13,206.33 ₹/year

Total saving per month = ₹3,84,433.86

Total saving per month  $\times$  ROIC = Total cost to make project.

$$ROIC = \frac{26,00,000}{3,84,433 \cdot 86} = 6.763 \approx 6.8$$

- Payback / ROIC = 6.8 months

Table 4.4 HRU saving calculation

HRU SAVING CALCULATION			
In Oil fired Boiler			
Total water flow to Boiler	2.5	KL	A
Specific Heat of Water	1		
Efficiency of Boiler	85	%	
GCV of Natural Gas	12500	kCal/hr.	
Temp difference for the water Supplied through HRU	25	Deg C	
Temp difference for the water in the existing System	70	Deg C	
Fuel Consumed per Hour for Present system	21.7	Kg/Hr.	
Fuel Consumed in the proposed HRU System	8.467	Kg/Hr.	
Total Saving in Fuel	13.235	Kg/Hr.	
Total Saving of Fuel Annually @ Rs 24.65/kg	28,57,950	INR	
In Agro Based Boiler			
Total water flow to Boiler	2.5	KL	B
Specific Heat of Water	1		
Efficiency of Boiler	93	%	
GCV of Natural Gas	12500	kCal/kg	
Temp difference for the water Supplied through HRU	25	Deg C	
Temp difference for the water in the existing System	70	Deg C	
Fuel Consumed per Hour for Present system	78.8	Kg/Hr.	
Fuel Consumed in the proposed HRU System	71.54	Kg/Hr.	
Total Saving in Fuel	7.26	Kg/Hr.	
Total Saving of Fuel Annually @ Rs 24.65/kg	15,67,262.90	INR	
Connected electrical load in Existing System	10	kw	
Connected electrical load in Existing System	5	kw	
Connected electrical load in Existing System	7.5	kwh	
Connected electrical load in Existing System	4.4	kwh	
Manpower required per shift			
a) Operator	1	Nos	
b) Firemen	1	Nos	

c) Helpers	1	Nos	
1) Fuel Savings (CNG)	44,25,567	A+B	
2) Power cost with Existing System	3,15,000	C	
2.1) Power loss with HRU	184,800	D	
3) cooling water flow reduction	1,87,639	E	
4) Manpower	41,400	F-consider three shifts	

NET SAVING WITH CENTAC HRU/Year			
Data considered			
1) Cost of fuel	24.65	scm <sup>3</sup>	
2) Cost of electricity	7.19	₹/kwh	
3) Working hours per day	24	hrs	
4) Working days per year	350	days	
5) Cost of operator	4500	₹/month	
6) Cost of Fireman	4000	₹/month	
7) Cost of helper	3000	₹/month	

Net saving with HRU/year	51,57,406	₹/year	
Cost of HRU + Installation Charges	2600000	INR	
ROIC	6.04	Months	

## Chapter Summary

This chapter consists of the former system which was used before installing HRU and reequipped system with installed HRU. It also gives us knowledge about air compressor, HRU and boiler which are main components of the project. It also highlights design calculation of Indirect loses, boiler-fuel consumption and cost savings calculation.

## Chapter 5

### Result and Discussion

After the installation of a heat recovery unit for centrifugal process air compressors which has conserve the energy by heating up soft-water which will be further sent to the furnace oil boiler and agro-waste boiler and thus has reduced the natural gas consumption and increased the steam fuel ratio.

This recovery and utilization of energy has saved a significant amount of fuel, therefore, is cost-efficient for the industry such waste heat recovery methods and techniques are applicable for the process industry.

Total savings of oil-fired boiler- ₹ symbol 28,57,950 ₹/yr    -(A)

Total savings of Agro based boiler- 15,67,262.903 ₹/yr    -(B)

Total savings by reduction in cooling water-1,87,639 ₹/yr    -(C)

Power loss with HRU = 1,84,800 ₹    -(D)

Power cost with existing system = 3,15,000 ₹    -(E)

Manpower cost = 4,14,000 ₹    -(F)

Total Cost saving on fuel annually=  $A+B+C-D+E+F = 51,57,406$  ₹/yr

Cost of HRU & Installation charges= ₹ 26,00,000

Return on Investment = 6.04 months

Fuel saved (natural gas) oil fired boiler :13.235 kg/hr.

Fuel saved (natural gas) agro based boiler: 7.26kg/hr

Cost of natural gas taken: ₹ 24.65

For oil fired boiler Energy saved = 140625 kcal/hr

For agro based boiler energy saved = 84375 kcal/hr

## Chapter Summary

This chapter comprises of result that obtained by after the implementation of the project. It specifically contains total savings of oil-fired boiler, total savings of agro based boiler, total savings by reduction in cooling water, total cost saving on fuel annually, cost of HRU & installation charges and more.

## **Chapter 6**

### **Conclusion and Future Scope**

#### **6.1 Conclusion**

After implementation of the project and analysis of the results, following conclusion is interpreted:

- The industrial waste heat given out in the atmosphere is being recovered and reused for the industrial processes
- This recovery and utilization of energy saves a significant amount of fuel therefor is cost efficient for the industry
- The calculations based on previous data and assumptions approximately save 51 lakhs rupees per annum can be saved by implementation of proposed system.
- Such waste heat recovery methods and techniques are applicable for process industry especially chemical industry.

## 6.2 Future Scope

### 1. Multi Effect Evaporator:

A multiple-effect evaporator uses the water vapor from one effect as the heating medium for the next effect, which operates at a lower boiling point. The latent heat in water vapor can also be reused by thermally or mechanically compressing the vapor to a higher pressure and temperature.

The water vapor from the first effect of a multiple-effect evaporator can be introduced into the steam chest of a second effect operating at a lower boiling point, the latent heat in the water vapor can be reused. Lowering the vapor pressure of the second effect relative to the first effect lowers the boiling point of the second effect. This arrangement of reusing vapor latent heat is called multiple-effect evaporation.

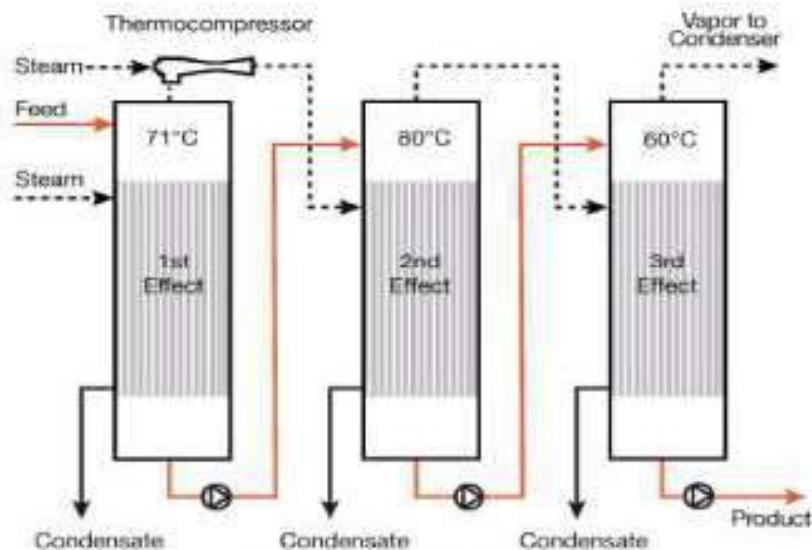


Fig 6.1- Multi Effect Evaporator



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A Mini – Project Report on

# **SPEED CONTROL OF DC MOTOR USING IC 555**

Submitted in partial fulfilment of the requirement  
of the degree of

**Third Year of Engineering**

by

**DIPESH RAJENDRA TOKARE (67)**

**ANAND GANGARAM KATELA (28)**

**SIDHARTH SURESH MACHHI (34)**

**HARSH SURYAKANT CHAUHAN (08)**

Project Guide

**PROF. PIYALI MONDAL**



**DEPARTMENT  
OF  
ELECTRICAL ENGINEERING**  
VIVA INSTITUTE OF TECHNOLOGY  
UNIVERSITY OF MUMBAI

2021-22

## **CERTIFICATE**

This is to certified that the project entitled “**SPEED CONTROL OF DC MOTOR USING IC 555 & PWM**” is a Bonafede work of “**DIPESH RAJENDRA TOKARE (67), ANAND GANGARAM KATELA (28), SIDHARTH SURESH MACHHI (34), HARSH SURYAKANT CHAUHAN (08)**” submitted to the University of Mumbai in partial fulfilment of the requirement for the award of the degree of “**Third Year of Engineering**” in “**Electrical Engineering**”

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Last but not the least we wish to thank our friends for providing technical and moral support. We hope that this project report would meet the high standards of all concerned people and for their continuous co-operation during the whole period of project that helped us in enhancement of this project.

## PROJECT REPORT APPROVAL FOR T.E

The project entitled “**SPEED CONTROL OF DC MOTOR USING IC 555 & PWM**” by “**DIPESH RAJENDRA TOKARE (67), ANAND GANGARAM KATELA (28), SIDHARTH SURESH MACHHI (34), HARSH SURYAKANT CHAUHAN (08)**” is approved for the degree of Third year of electrical Engineering.

Examiners

1. -----
2. -----

Date:

Place:

## DECLARATION

We declare that written submission represents my ideas into my own word and where others ideas or word have been included, I have adequately cited and reference the original sources. we also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source/in my submission. I understand that any violation of the above will because for display action by the institute and can also evoke penal action from the source which have thus not been properly cited or whom proper permission has not been taken when needed.

DIPESH R. TOKARE (67) -----

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## ABSTRACT

In this circuit, the DC motor is operated by a 555 integrated circuit. The IC 555 in this circuit is being operated in Astable mode. In this mode, the circuit can be used as a pulse width modulator with a few small adjustments to the circuit. The frequency of operation of the circuit is provided by the passive parameters of resistances and capacitances attached to it. The resistance between pin-7 and pin- 8, the resistance between pin-6 and pin-7 and the capacitance between pin-2 and the ground govern the frequency of operation and duty cycle of the IC 555 in Astable mode. The duty cycle is governed by the resistor which is in between pin-6 and pin-7 of the IC 555 timer. So, by taking advantage of the circuits working, we can change the 555 Astable multivibrator into a pulse width modulator by using a variable resistor instead of a constant resistor in between pin-6 and pin-7. One of the best things about this circuit is that we can make it work as an astable multivibrator with little hardware and by little cost which can save both the cost involved in making it as well as the space on the printed circuit board is saved. If we want a sophisticated pulse width modulator which works more accurately and which can have more adjusting capabilities, then it is better to use a microcontroller-based pulse width modulator than the one which we are using now. However, the circuit or the application for which we are using a pulse width modulator is not so sensitive and hence does not demand so much of accuracy. In such a case, the circuit which we are using with a bare IC 555 is better as it saves our monetary as well as space resources in building the circuit. The duty cycle of the circuit can be changed by changing the resistance between pin-7 and pin-6. If we increase the duty cycle, the speed of the motor increases and if we decrease the duty cycle, the speed of the motor decreases.

**Keyword:** - *speed control, timer IC, PWM, astable Mode, duty cycle.*

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## **List of Abbreviations**

<b>Abbreviation</b>	<b>Full Form</b>
IC	Integrated circuit
PWM	Pulse Width Modulation
V	Voltage
DC	Direct current
DMM	Digital multi meter
PCB	Printed circuit Board

# **Chapter 1**

## **Introduction**

### **1.1 Overview**

In this project, I will show How Speed Control of DC Motor can be implemented using 555 timer and Pulse Width Modulation (PWM). Most of the industrial process requires to be run on the certain parameters where speed of the drive is concerned. The electric drive systems used in many industrial applications require higher performance, reliability, variable speed due to its ease of controllability. The speed control of DC motor is important in applications where precision and protection are of essence. Purpose of a motor speed controller is to take a signal representing the required speed and to drive a motor at that speed. In this project controller presented uses the pulse width modulation (PWM) technique for speed control of DC motor. We use DC Motors in many systems in our day to day life. For example, CPU fans, fume extinguishers, toy cars etc. are all DC Motors which are operated by DC power supply. Most of the times we will have to adjust the speed of the motors as per our requirement. A CPU Fan for example, must be operated at high speed when the CPU is performing heavy tasks like games or video editing. But for normal usage like editing documents, the speed of the fan can be reduced. Although some systems have an automatic adjustment system for fan speed, not all systems possess this functionality. So, we will have to adjust the speed of the DC Motor ourselves occasionally. The circuit is used to control speed of DC motor by using PWM technique. Series Variable Speed DC Motor Controller 12V uses a 555 timer IC as a PWM pulse generator to regulate the motor speed DC12 Volt. IC 555 is the popular Timer Chip used to make timer circuits. In the Astable mode (AMV), the IC works as a free running multivibrator. The output turns high and low continuously to give pulsating output as an oscillator.

### **1.2 Aim of project**

To control the speed of the dc motor using 555 IC.

## Chapter 2

### Literature Review

#### 2.1 Literature Survey

[1.] **Name of Paper:** speed control of DC motor using single phase matrix converter

**Name of Author:** Merve Boydak, Ahmet Orhan, Abhuzer caliskan

**Name of Publication:** IEEE

**Year of Publication :**2020

In this paper focuses on speed control of dc motor using new driver circuits of single-phase matrix converter. Charging of modulation index has been provided with closed loop PI control, Thus the voltage applied to the armature has been controlled SPMW technique is used to obtain switching signals.

[2.] **Name of Paper:** Design of dc motor PWM speed control system based on BT-04 and AVR MCU.

**Name of Author:** Xiangyan He, Zheohui Wei, Dejun Lei min Yao

**Name of Publication:** IEEE

**Year of Publication:** - 2019

In this paper dc motor PWM speed control system based on BT – 04 and AVR MCU is designed in this paper android mobile app as host computer and AVR MCU as the slave computer.

[3.] **Name of paper:** Speed Regulation of DC Motor by Buck Converter.

**Year of Publication:** 2018

**Publication:** IEEE

**Author:** Rajinikanth Sinha, prabhir Ranjan kasari, Abhiniswar chakraborty, Bikram das, Arindam das

In this paper a speed control methodology by varying the armature voltage using a buck converter is presented in this paper. The controller used in this methodology is proportional-integral type. Using this controller, the fast correction is performed by the proportional term and the integral term makes the steady state zero in finite time frame.

A MATLAB simulation is performed for automatic control of dc motor using PI controller and buck chopper in a close loop.

**[4.]Name of paper:** Analysis and Comparison of Various Speed Control Strategies on the performance of dc

**Year of publication:** 2017

**Publication:** IEEE

**Author:** Hu zin, ming pinglang, wei xuezhou

This paper presents the effect of different speed control strategies on the speed response of a DC motor. The mathematical models are built on the basis of the analysis of operation modes and structural characteristics in the environment of MATLAB/Simulink, mechanical characteristic and torque characteristic of DC motor is also concerned in this work. By analysing and comparing the merits and shortcomings, the appropriate applicable condition of different speed control strategies can be concluded, which in turn optimizes actual controller and offers reasonable choice of electronic unit parameters.

**[5.]Name of paper:** PWM speed DC motor drive power design

**Name of Author:** Zhenyi Xu, yu kang

**Name of Publication:** IEEE

**Year of publication:** 2016

In this paper describe the design of a bipolar pulse width modulation dc speed control system. Using microchip PIC16F876 microcontroller as the system control circuit and is becoming the main technology of DC motor control.

## 2.2 Research Gap

- We have studied many research papers related to this project and these papers helped to understand the different aspect posed by the research on the DC motor speed control.
- The different types of speed control methods are available to control the DC Motor Speed.
- In the different type of speed control methods use the different types of components.

## Chapter 3

### Design Methodology

#### 3.1 List of Components

Table 3.1 list of components

Sr. No.	Components	Ratings	Quantity
1.	555 Timer IC	4.5 - 16v, ~200mA	1
2.	MOSFET IRFZ44N	17A, 55V	1
3.	DC Motor	12v	1
4.	Potentiometer	100 K $\Omega$	1
5.	Diode 1N4007	~300mA	1
6.	Diode 1N4148	~300mA	2
7.	Resistor	1 K $\Omega$	3
8.	Potentiometer	100 K $\Omega$	1
9.	Capacitor	10 nF	1
10.	Capacitor	0.1uF	1
11.	DC Power Supply Adapter	12v	1

### 3.2 Circuit Diagram

- Circuit diagram of Speed control circuit is as given below in fig. 3.1.

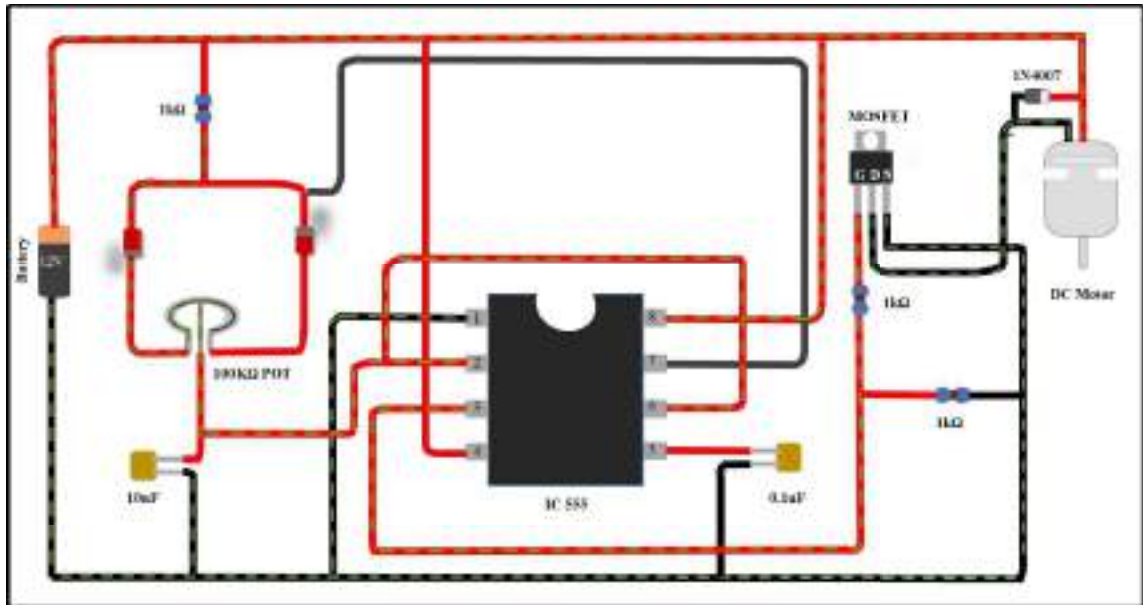


Fig 3.1 Speed control circuit

### 3.3 Basic Working of Circuit

- a) In this circuit we are using 555 timer this is an integrated circuit component which means inside it a number of smaller components all combined into one package. the 555 timer can handle a maximum load of around 200 mA. We are control the DC motors from a 12 Volt supply and at 12 volts it draws a current of around 1.4 amps and that's with no load applied this is already more than our 555 timer can handle.
- b) so, we are using a MOSFET which is a type of electronic switch. we are use an IRFZ44N MOSFET it can handle the voltage and current and it also has a low drain source on resistance. the motor will be connected to the MOSFET Drain Pin and the Source Pin Connects to Ground.
- c) The MOSFET will normally block the flow of current to the motor doesn't rotate. if we apply a small voltage to the gate pin it will allow some current to flow. When we apply higher voltage is applied then more current is allowed to flow and so the motor rotates faster.

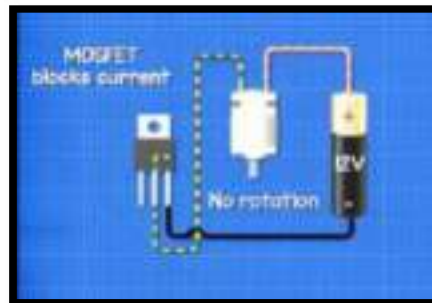


Fig 3.2 MOSFET Basic Working

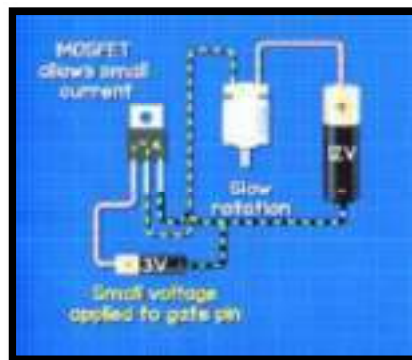


Fig 3.3 MOSFET Working Condition -I

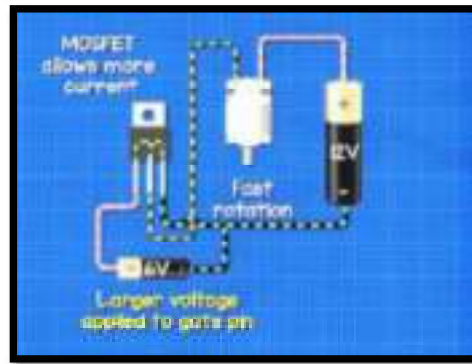


Fig 3.4 MOSFET Working Condition - II

- d) The 555 timers will provide the voltage to the MOSFET gate pin from pin 3 to vary the voltage and control the speed of a motor. it will send as a pulse. each pulse lasts a period of time.

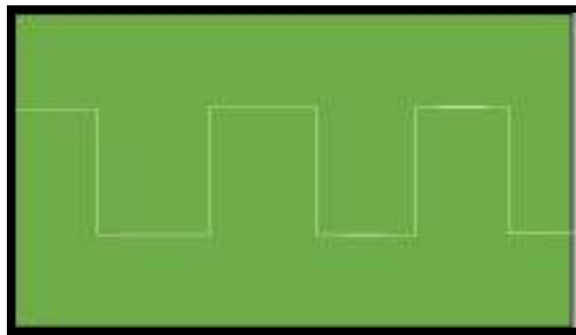


Fig 3.5 pulse voltage signal

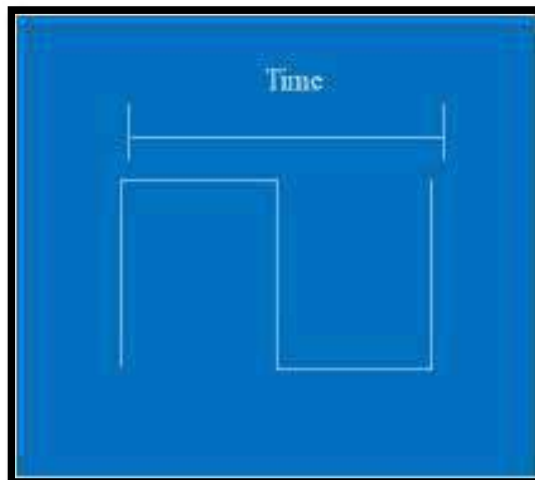


Fig 3.6 pulse

- e) There will be a segment where the signal is on so voltage is applied and a segment where the signal is off so no voltage will be applied the MOSFET will therefore experience the

average voltage for each time period. the wider the on pulse the higher the average voltage will be this is pulse width modulation.

- f) The current to the gate pin is tiny so are add a 1 k $\Omega$  resistor between the MOSFET gate pin and pin -3 of the 555 timer. This will protect the component by limiting the current. If the MOSFET were to malfunction and allow current to flow out of the gate a charge of electrons will build up the MOSFET gate pin and we need to discharge this to turn it off. So, we are place another 1K ohm resistor and connect this to ground, which provides a discharge path.
- g) The electrical motor contains coils of wire. so, we are considered it an inductor when inductors are powered, they store energy in their magnetic field when the power is caught this magnetic field collapses and the inductor pushes electrons through the circuit this causes a very large and sudden surge in energy. which can damage our circuit. so, we are adding a fly back diode which provides a path to safely circulate and diminish the energy for this we are use a 1N4007 diode which can handle the large peak current. so, we add that to the circuit. connect pin 8 from the 555 timer which is the components power supply and we connect this to the positive then we are connect pin 1 to ground.
- h) Inside the timer we have Three 5k ohm resistors between pin – 1 and pin – 8. That's why it called 555 timer IC.

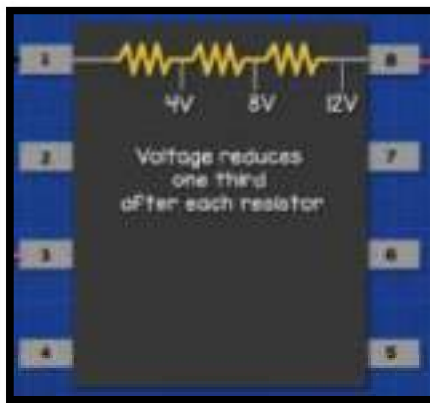


Fig 3.7 Internal resistors

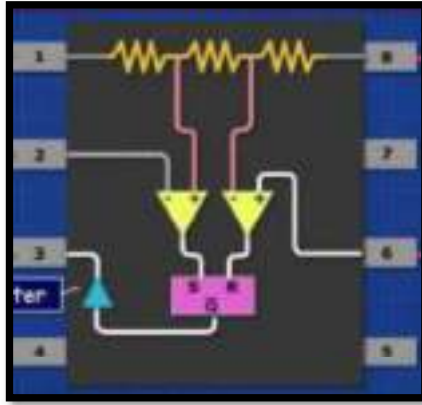


Fig 3.8 555 IC Internal connections

And components

- i) In This Timer IC the voltage is reduces one third after each resistor (show in Fig. No.4.2). As we have 12 volts at pin -8, the voltage will reduce to 8 volts after the first resistor and then down to 4 volts after the second resistor.
- j) The 555 timer uses these as a reference connected to the resistor are to comparators. The comparator has a positive and negative input as well as a Single output. the first comparator is connected to the resistor through the negative input the positive input is connected to pin 6, the threshold pin. comparator to is connected to the resistor via the positive input its negative input is connected to pin 2, the trigger pin (shown in Fig. No.4.3).
- k) The comparators are now connected across two different voltage so it care them. if the positive input voltage is higher than the negative input it outputs is high signal or positive voltage (Shown in Fig No.4.4). if the negative input voltage is higher than or equal to the positive input voltage it will output will be low signal or zero voltage (Shown in Fig. NO.4.5). we connect pin - 2 and 6 together so that the voltage is same (shown in fig. No.3.1).

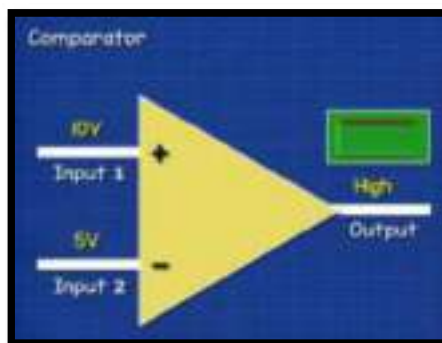


Fig 3.9 Comparator Condition- 1

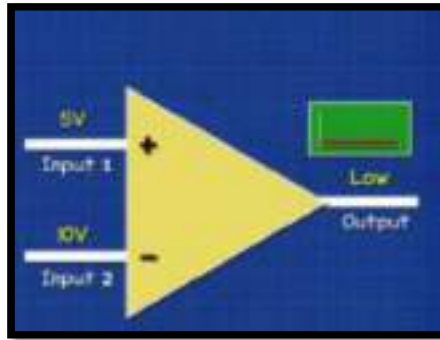


Fig 3.10 Comparator Condition -II

- l) The output from the comparators connect to another internal component called the flip flop the first comparator connects to the input named reset. The second comparator connects to the input named set there is also an output named not Q. When the flip flop receives a high signal comparator 1, it outputs a high signal (shown in Fig. No.4.4). when the flip flop the receives a high signal from comparator 2, it outputs a low signal (shown in Fig. No.4.5). if both comparators provide low signal the flip flop remains unchanged and continuous this will then pass through another component called an inverter which simply inwards the signal it is given.
- m) In the circuit if we apply a small voltage for example 3.9 volts to pin- 2 and 6, comparator 1 outputs a low signal and comparative 2 outputs a high signal this sets the timing interval. to begin the flip flop outputs a low signal the inverter outputs a high signal. In this case when we increase the voltage for example to 6 volts and Comparator 1 and 2 will output a low signal the flip flop remains unchanged the timing continues. but at 8 volts comparative 1 output a high signal and comparative 2 outputs a low signal the output of the flip flop now reverses and the output is high this resets the timing. The output of the flip flop remains the same until the voltage decreases to around 4 volts. Where comparative 1 output a low signal and comparative 2 outputs a high signal this starts the timer again. So, we see that as the voltage on pin - 2 and 6 increases and decreases the output of a 555 timer changes so to control the voltage and therefore the time interval we connect pin – 2 and 6 to a capacitor.
- n) When we connect a capacitor to a power supply it instantly reaches the battery voltage. but if we connected via a resistor the resistor slows down the charging time. the larger the resistor the longer it takes to charge the voltage up so to charge our capacitor we will use a fixed one killer in resistor and a 100 k $\Omega$  potentiometer the potentiometer is a variable resistor so we can therefore vary the capacitor charging time we will need to also discharge

the capacitor in order to restart the timer so we will added 2 diodes to create a separate charge and discharge path the current.

- o) In this part of the circuit is very small since the resistors are in the k $\Omega$  range we are using the 1N4148 diode. which have a forward current of around 300 Ma, which will be fine for this application. We will use the 10 nF ceramic capacitor. we added this diode to the circuit then we connect those to the fixed resistor and the diode to pin - 1 and 3 of the potentiometer. then we connect the capacitor to ground as well as to pin - 2 and 6 of the 555 timer and also to pin - 2 of the potentiometer. Pin - 7 is the discharge pin which is connected to our timing capacitor.
- p) Inside the fire 55 timer the output of the flip flop connects to the gate pin of an internal transistor this controls the flow of current from the capacitor to ground. when the flip flop output is low the transistor is off. So, the capacitor charges and the voltage begin to increase. when the voltage increase is enough so that the output of the flip flop is high, the transistor is turned on which discharges the capacitor so the voltage reduces.
- q) When it reaches 4 volts the capacitor begins to charge again when it reaches 8 volts it will then discharge.
- r) Pin 5 which is the control voltage we can use this to override comparator 1. We don't need that for this circuit so we connect this to ground via a 0.1 microfarad ceramic capacitor grounding this pin prevents accidental override and the capacitor will filter out any noise or frequency.
- s) We also have pin 4 the reset pin which we will connect to the positive of the circuit we could use this to override and reset the flip flop by interrupting the power supply to the reset pin we don't need that for this circuit so it is connected to the positive.
- t) When charging the current flows through the resistor, the diode, the left side of the potentiometer to the capacitor, the flip flop output is low. So, the discharge transistor is off. pin - 3 outputs a high signal once the capacitor charges to 8 volts, the flip flop output becomes high, which turns on the transistor and the capacitor therefore discharges through the right side of the potentiometer and the diode.
- u) Pin - 3 outputs a low signal. The transistor remains open so that the capacitor discharges until it reaches 4 volts where the flip flop reverses again. This turns the transistor off start the timing again this cycle repeats continuously. The capacitor charges and discharges creating a sawtooth wave and the 555 timer outputs a square wave which is posed with modulation.

- v) The cycle time which gives us 1428 Hertz the duty cycle is calculated this to the output is on for around 50% of the time. we use the 10 nF capacitor because it gives us a very high frequency and the DC motor works best at high frequency.

### 3.4 Timer IC 555

The 555 timer IC is an integrated circuit used for Plus Generation, delay, and a variety of timer applications.

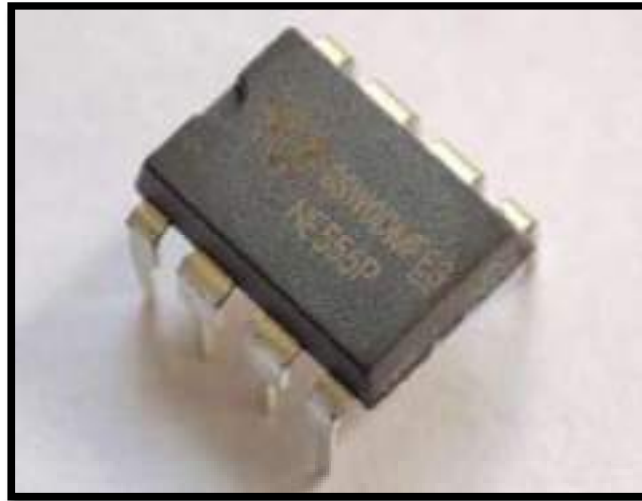


Fig 3.11 555 Timer IC

Derivatives provide two or four timing circuits in one package. The working principle of the 555 timer is by considering the block diagram of the 555 timer IC. The first comparator has threshold input to pin 6 and control inputs for pin 5. The control input is used in some of the applications, but most of the applications the control input is not used hence the control voltage is equal to  $+2/3 V_{cc}$ . The output of the first comparator is given to the flip flop of set pin input. Whenever the threshold voltage overcomes the control voltage then the first comparator is set to flip flop and the output is very high.

Table 3.2 Properties of IC [NE 555]

Properties of IC [ NE 555]	Values	
	Min	Max
Supply voltage ( $v_{cc}$ )	4.5v	16v
Input voltage ( $v_i$ )	4.5v	18v

- **Pin 1** – Ground, the ground pin connects the 555 timers to the negative (0v) supply rail.
- **Pin 2** – Trigger, The negative input to comparator No 1. A negative pulse on this pin “sets” the internal Flip-flop when the voltage drops below  $1/3V_{cc}$  causing the output to switch from a “LOW” to a “HIGH” state.

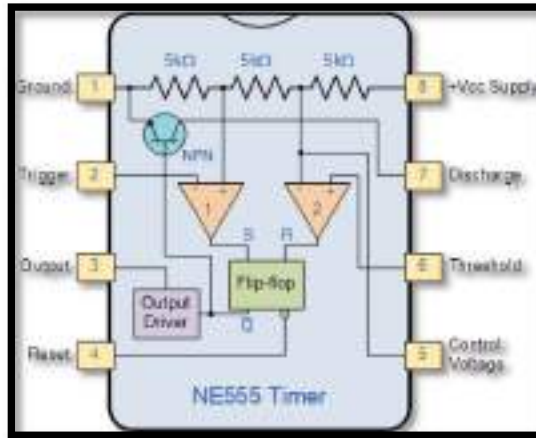


Fig 3.12 Pin Diagram

- **Pin 3** – Output, the output pin can drive any TTL circuit and is capable of sourcing or sinking up to 200mA of current at an output voltage equal to approximately  $V_{cc} - 1.5V$  so small speakers, LEDs or motors can be connected directly to the output.
- **Pin 4** – Reset, this pin is used to “reset” the internal Flip-flop controlling the state of the output, pin 3. This is an active-low input and is generally connected to a logic “1” level when not used to prevent any unwanted resetting of the output.
- **Pin 5** – Control Voltage, this pin controls the timing of the 555 by overriding the  $2/3V_{cc}$  level of the voltage divider network. By applying a voltage to this pin, the width of the output signal can be varied independently of the RC timing network. When not used it is connected to ground via a 10nF capacitor to eliminate any noise.
- **Pin 6** – Threshold, The positive input to comparator No 2. This pin is used to reset the Flip-flop when the voltage applied to it exceeds  $2/3V_{cc}$  causing the output to switch from “HIGH” to “LOW” state. This pin connects directly to the RC timing circuit.
- **Pin 7** – Discharge, the discharge pin is connected directly to the Collector of an internal NPN transistor which is used to “discharge” the timing capacitor to ground when the output at pin 3 switches “LOW”.
- **Pin 8** – Supply +Vcc, this is the power supply pin and for general purpose TTL 555 timers is between 4.5V and 15V.

### 3.5 MOSFET

It is basically an N-Channel power Metal Oxide Silicon Field Effect Transistor (MOSFET) and operates in enhancement mode. MOSFET is a lot sensitive in comparison to an FET (Field Effect Transistor) due to its very high input impedance.



Fig 3.13 MOSFET

IRF540 can perform very fast switching as compared to the normal transistor. It is based on HEXFET technology and operates on the temperature ranging from  $-55^{\circ}\text{C}$  to  $175^{\circ}\text{C}$ . If we need some switching application between different signals or to perform any of amplification process, MOSFET IRF540 will be the best option in this case because it can perform very fast switching as compared to the similar general transistors. It has a very wide range of applications in real life e.g. high-power switching drivers for high speed, switching regulators, relay drivers, switching converters, motor drivers.

Table 3.3 Properties of MOSFET IRFZ44N

Property	Values
Drain to source breakdown voltage	55v
Continuous Drain current	17A
Temperature	$-55^{\circ}\text{C}$ To $175^{\circ}\text{C}$

### 3.6 DC Motor

A DC motor is any of a class of rotary electrical machines that converts direct current electrical energy into mechanical energy.



Fig 3.14 DC Motor

The most common types rely on the forces produced by magnetic fields. Nearly all types of DC motors have some internal mechanism, either electromechanical or electronic, to periodically change the direction of current flow in part of the motor. In this project, we use 12V DC motor.

### 3.7 Potentiometer

A potentiometer is a three-terminal resistor with a sliding or rotating contact that forms an adjustable voltage divider. If only two terminals are used, one end and the wiper, it acts as a variable.



Fig 3.15 Potentiometer

It is an electronic component. It is applied in an electronic circuit for adjusting circuit resistance to control voltage or current of that circuit or part of that circuit. The electrical resistance is varied by sliding a wiper contact along a resistance track. Sometimes the resistance is adjusted at present value as required at the time of circuit building by adjusting screw attached to it and sometimes resistance can be adjusted as when required by controlling knob connected to it. The active resistance value of the variable resistor depends upon the position of the slider contact on the resistance track.

### 3.8 Diodes

The 1N4148 is a standard high- speed switching signal diode. It is one of the most popular and long-lived switching diodes because of its dependable specifications and low cost.



Fig 3.16 Diode

It is widely used in signal frequency, communication, computer board, TV Circuit, and the industrial control circuit. The 1N4148 is useful in switching applications up to about 100 MHz with a reverse-recovery time of no more than 4 ns.

### 3.9 Ceramic Capacitor

Ceramic capacitors are the common types of capacitors used in most of the electrical instruments as they are more reliable and cheaper to manufacture. Ceramic capacitor is a fixed-value capacitor where the ceramic material acts as the dielectric.

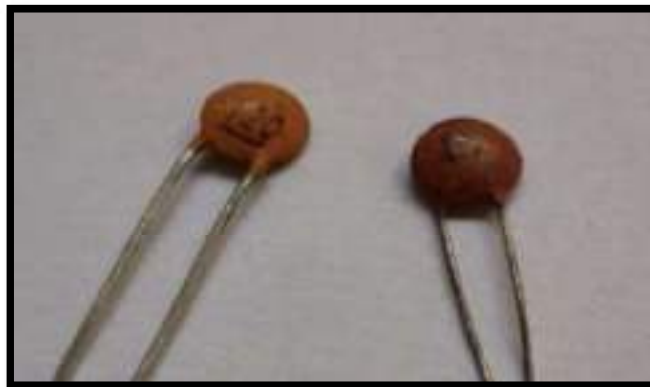


Fig 3.17 ceramic capacitor

It is constructed of two or more alternating layers of ceramic and a metal layer acting as the electrodes. The composition of the ceramic material defines the electrical behaviour and therefore applications.

### 3.10 Resistor

A register is a passive terminal electrical component that implements electrical resistance as a circuit element. Resistor act to reduce current flow, and at the same time, act to lower voltage levels within circuit. In electronic circuits resistors are used to limit current flow to adjust signal levels, bias active elements terminate transmission lines among other uses.



Fig 3.18 Resistor

High power resistors that can dissipate many watts of Electrical power as heat may be used as part of motor controls, in power distribution system, or as test loads for generators. Fixed resistor has Resistance that only change slightly with temperature, time or operating voltage. Variable resistors can be used to adjust circuit elements or as sensing devices for heat, light, humidity, force or chemical activity Resistor are common elements of electrical networks and electronic circuits and are ubiquitous in Electronic equipment. Practical resistor as discrete Component can be composed of various compounds and forms. Resistor are also implemented within integrated.

### 3.11 PCB

Isolates the surface copper foil conductive layer by using the board-based insulating material to allow current to flow along pre-designed routes in various components. Thereby performing functions such as work, amplification, attenuation, modulation, demodulation, encoding and the like.

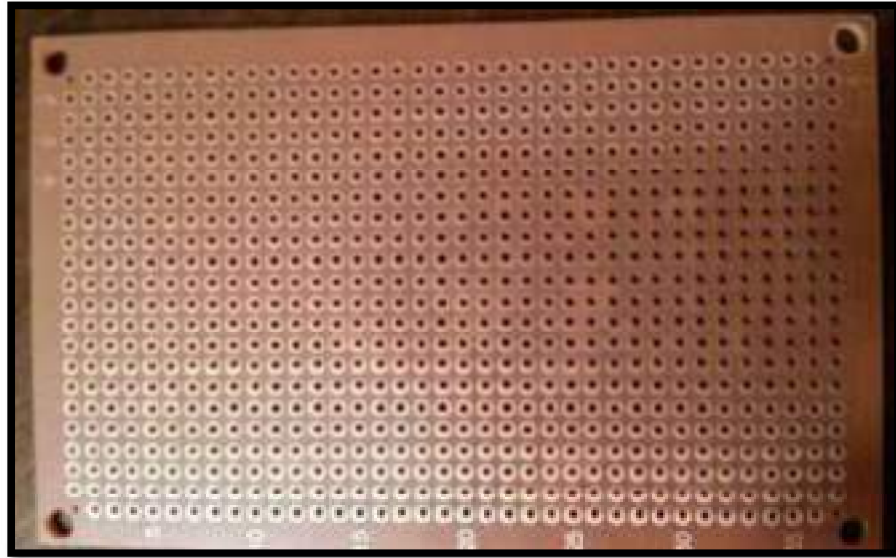


Fig 3.19 PCB

On the most basic PCB, the parts are concentrated on one side and the wires are concentrated on the other side. Since the wire only appears on one side, this PCB is called a single-sided PCB. The wires of the multi-layer board must have proper circuit connections between the two layers. The bridging between the circuits is called a via. The via in the PCB can be connected to the wires of each layer and then connected to multiple components. The PCB makes the circuit miniaturized and visualized. It plays an important role in the mass production of fixed circuits and the layout of optimized electrical appliances, as well as the transmission of electrical signals between circuits. When the circuits are brought together, we also need to consider the current size, creepage distance, electromagnetic compatibility, thermal energy consumption, heat dissipation methods and the location of external connectors.

### 3.12 DC Power Supply Adapter

In this project we are use the 12v outputs Adapter.



Fig 3.20 DC Power Supply Adapter

### 3.13 Project Scheduling

Table 3.4

Sr. No.	Work Details	No. of Days
1.	Collect Information about project	15 Days
2.	Literature survey	07 Days
3.	Circuit Diagram	06 Days
4.	Components buying	30 Days
5.	Install components on PCB	2 Days
6.	Hardware assembly	4 Days

## Chapter 4

### Hardware Modelling

#### 4.1 Hardware Modelling

Photograph of different stages and their stage wise description

Step I - We Collected All Components and Place on PCB Board



Fig 4.1 Step I

Step II – As Per Circuit Diagram were soldered.



Fig 4.2 Step II

Step III – connected the external wires for power supply.

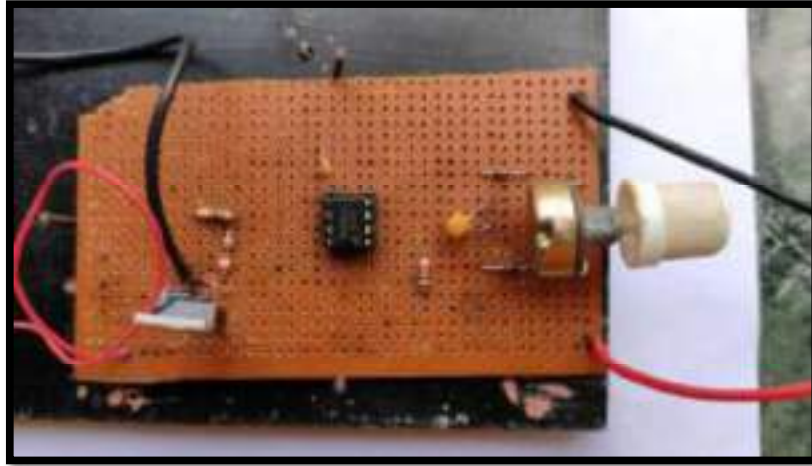


Fig 4.3 Step III

## 4.2 Project Photographs

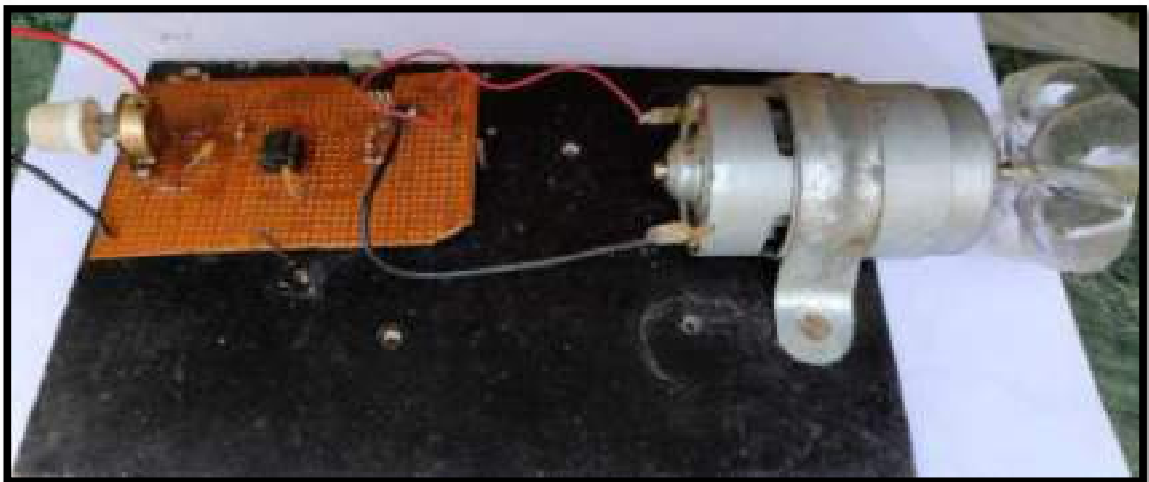


Fig.4.4 Speed Control Model Circuit

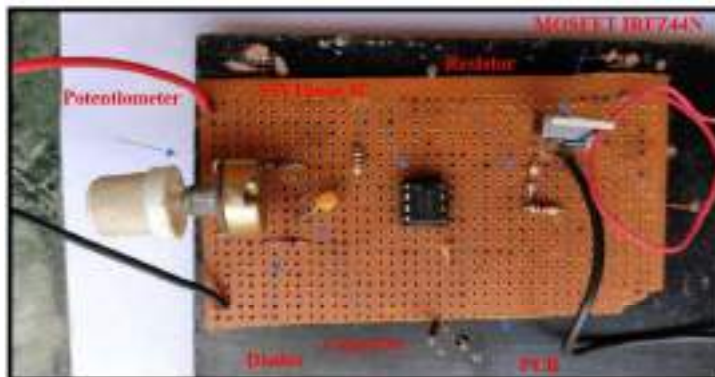


Fig 4.5 Speed Control Circuit

## Chapter 5

### Result

By varying the ohmic pot we have done the speed control DC motor by means of PWM method. We found out that this is very cheap and efficient speed control method where all components give reliable operation and we have checked it experimentally where the efficiency of rheostatic method is better than the PWM control method.

Figure 5.1 shows the pulses at different duty cycles. The pulse with higher duty cycle turns 'ON' at longer time than that of lower duty cycle. The duty cycle,  $d$  is governed by equation

$$d = t_{on}/T$$

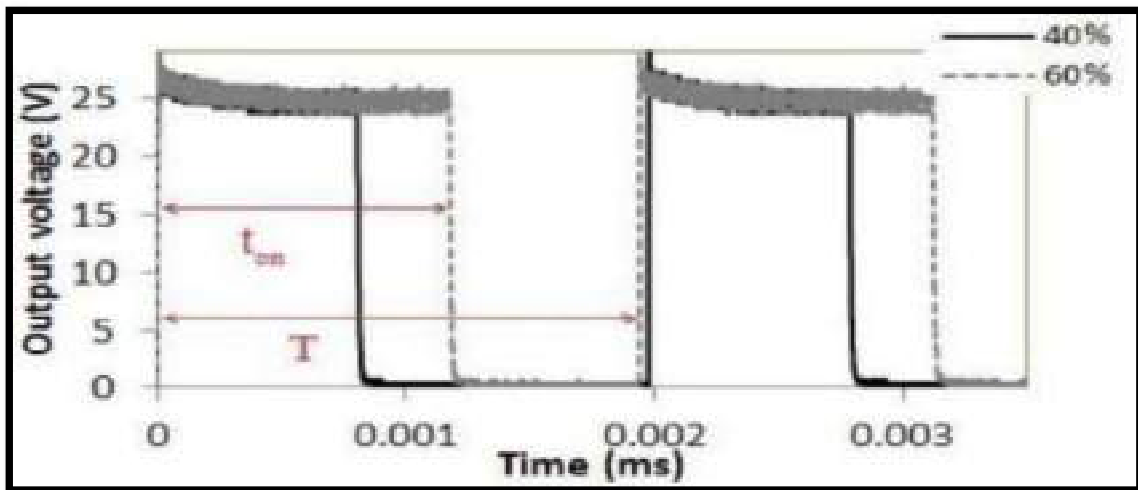


Fig. No.5.1 Pulse at Different Duty Cycle

where  $T$  is the duration of one period and  $t_{on}$  is the 'ON' time. The ratio of ON to OFF time is called as duty cycle, which determines the speed of the motor. The desired speed can be obtained by changing the duty cycle. The PWM pulse is used to control duty cycle of DC motor drive. Power is supplied to the motor in square wave of constant voltage but varying pulse width or duty cycle. Duty cycle refers to the percentage of one cycle during which duty cycle of a continuous train of pulses. Since the frequency is held constant while the on-off time is varied, the duty cycle of PWM is determined by the pulse width. Thus, the power increases duty cycle in PWM. The PWM ON period at 60 % of duty cycle is higher than at 40 % duty cycle. This contributes to higher motor speed at 60 % duty cycle compared to 40 % duty cycle.

Figure 5.2 shows the pulses at switching frequency of 500 Hz and 1500 Hz. The frequency of operation,  $f$  is defined as

$$f = 1/(t_{on} + t_{off}) = 1/T$$

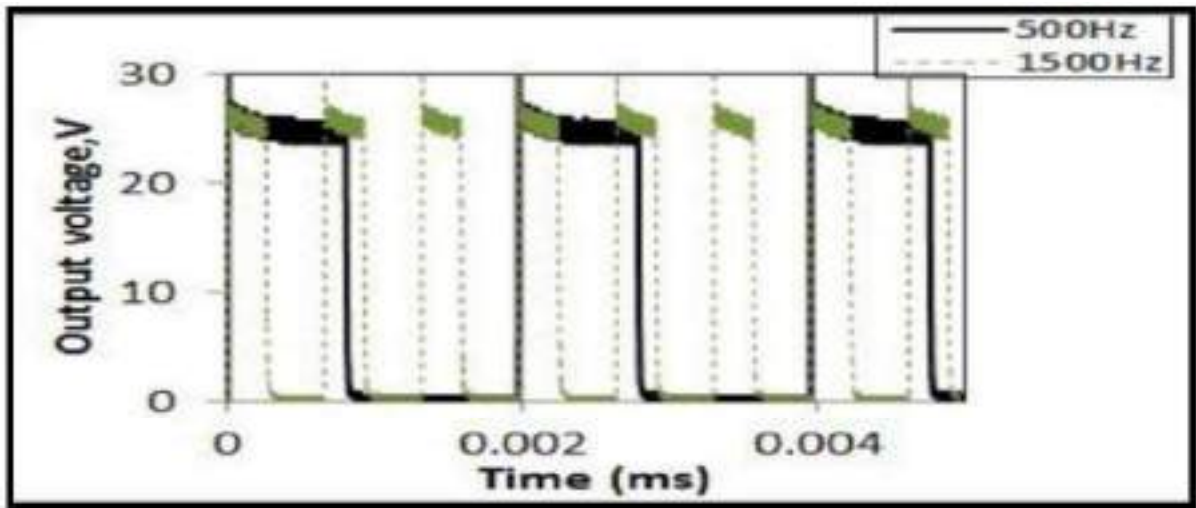


Fig. No.5.2 pulse at Different Frequencies

Where  $t_{on}$  is the ON time of the PWM pulse,  $t_{off}$  is the 'OFF' time in which the value of PWM pulse is at zero level and  $T$  is the total time period of one duty cycle. Higher switching frequency increases the output voltage.

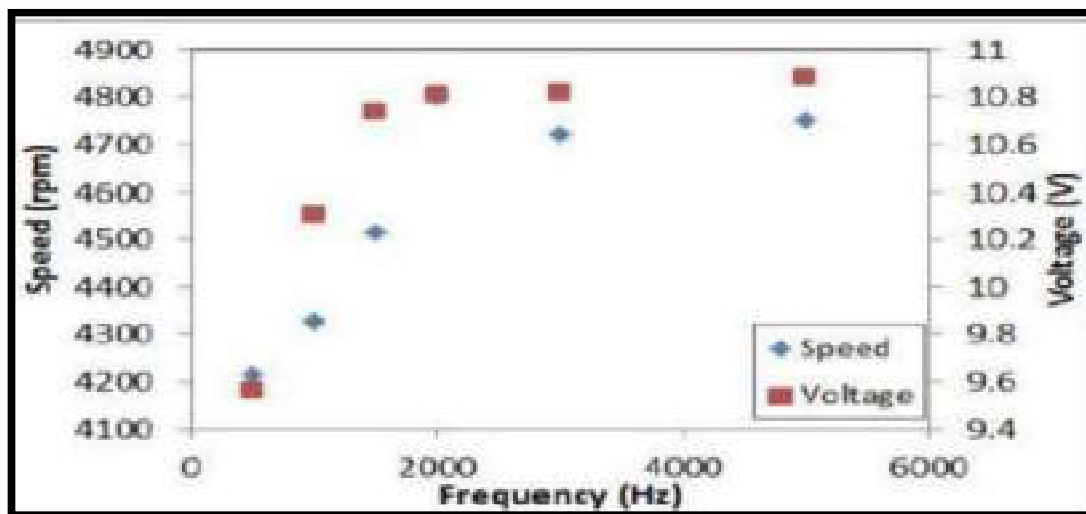


Fig. No.5.3 Motor Speed and Voltage at Different PWM Frequency

Figure 5.3 shows the motor voltage and speed at different frequencies. The voltage increases steeply from 9.56 V to 10.74 V as the frequency is increased from 500 Hz to 1500 Hz. However, the voltage increases gradually as the frequency is beyond 2000 Hz. This is due to the higher loss at higher frequency (Obed, 2011). It is obvious that the speed increases with increasing of

switching frequency. For instance, the speed increases from 4213 to 4722 RPM as the frequency is increased from 500 Hz to 3000 Hz. The average output voltage is governed by

$$V_{av} = (t_{on}/T) * V_m$$

where,  $t_{on}$  is the ON period of PWM pulse,  $T$  is the total time period of the one duty cycle and  $V_m$  is the input voltage.

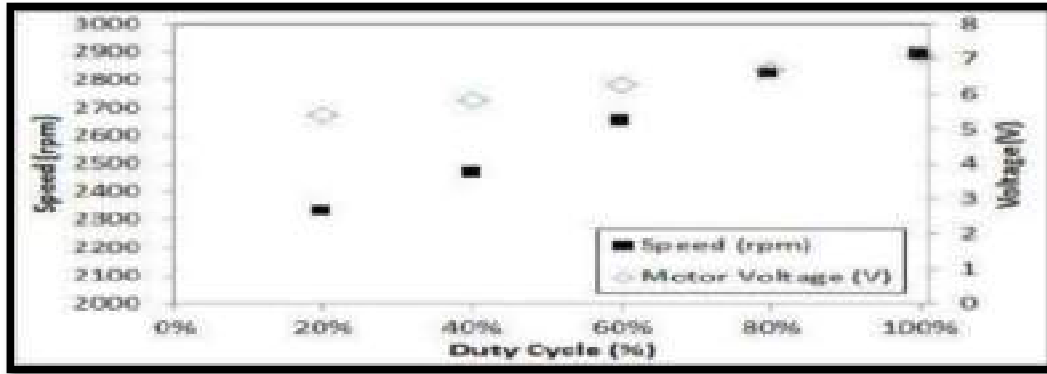


Fig. No.5.4 Motor Speed and Voltage at Different Duty Cycle

Figure 5.4 shows the motor speed and voltage at different duty cycle for the configuration shown in figure 5.1. The duty cycle was set from 20 % to 99 %. When the duty cycle is increased the motor speed is also increased. At 20 % duty cycle, the motor speed is 2332 RPM and the converter output voltage is 5.4 V. As the duty cycle increased to 40 %, the motor speed is 2470 RPM and the converter output voltage is 5.82 V. The motor speed and converter output voltage increase as the duty cycle increases to 60% and 80 %. The maximum speed of 2892 RPM and the maximum voltage were achieved at 99 % duty cycle. This shows that the speed increases as the duty cycle increases.

## Chapter 6

### Conclusion and Future Scope

#### 6.1 Conclusion

The dc motor speed is controlled by using power electronic device and the PWM is use which to control the speed of dc motor. The speed pulse train will be based on required input speed. This circuit is useful to operate the dc motors at required speed with very low losses and low cost. The circuit response time is fast. Hence high reliability can be achieved. The designed circuit was tested for various speed inputs satisfactorily. The method already employed in traction system and has a good scope ahead.

#### 6.2 Future Scope

- DC motor plays a significant role in modern industries. They are widely used in industry because of its low cost, less complex control structure and wide range of speed and torque so
- Better future of this project.
- In this project we are used pulse width modulation technique, it is a modern technology in
- Solid state field and it provide smooth speed control of motor.
- Now a day PWM technique are using in fuzzy logic control system, so PWM method is very
- Efficient and reliable method to control the speed of motor so it future is also bright in the modern era with fuzzy logic.

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## Appendix - I

### Cost Estimation

Table 5.1 Component Price List

SR. No.	Components	Quantity	Rate	Amount (Rs.)
1.	555 Timer IC	01	30₹ Each	30
2.	MOSFET IRFZ44N	01	20₹ Each	20
3.	DC Motor	01	200₹ Each	200
4.	Potentiometer	01	15₹ Each	15
5.	Diodes	01	05₹ Each	05
6.	Resistor	03	05₹ Each	15
7.	Capacitor	02	05₹ Each	10
8.	PCB	01	30₹ Each	30
9.	DC Power Supply Adapter	01	100₹ Each	100
Total				Rs.425

# UNIVERSITY OF MUMBAI

A PROJECT REPORT ON

## “Image Steganography”

SUBMITTED BY

**Riya Pravin Suvarna & Sayali Chandrakant Nachare**

Under the guidance of

**(Prof. Krutika Vartak)**

**Late Shri. Vishnu Waman Thakur Charitable Trust's**

**VIVA INSTITUTE OF TECHNOLOGY**

**Shirgaon, Virar(East)**

**2021-22**

Late Shri. Vishnu Waman Thakur Charitable Trust's  
**VIVA INSTITUTE OF TECHNOLOGY**  
Shirgaon, Virar(East)



**CERTIFICATE**

This is to certify that

**Ms. Riya Pravin Suvarna & Ms. Sayali Chandrakant Nachare**

Has satisfactorily completed the project entitled

**( Image Steganography )**

Towards the partial fulfillment of the

**MASTER OF COMPUTER APPLICATION (MCA)**

As laid by University of Mumbai.

\_\_\_\_\_  
**Principal**

\_\_\_\_\_  
**External Examiner**

\_\_\_\_\_  
**Internal Guide**

## DECLARATION

I hereby declare that the project entitled, “Image Steganography” done at place where the project is done, has not been in any case duplicated to submit to any other university for the award of any post-graduation degree. To the best of my knowledge other than me, no one has submitted to any other university.

The project is done in fulfillment of the requirements for the award of post-graduation degree of **Masters of Computer Application** to be submitted as Semester-II project as part of our curriculum.

**Riya Pravin Suvarna & Sayali Chandrakant Nachare**

**FY.MCA**

## ACKNOWLEDGEMENT

It gives me pleasure to present this report towards the fulfilment of my project.

I am highly indebted to our principal **Dr. Arun Kumar**, and M.C.A. coordinator **Prof. Chandani Patel** for giving me this opportunity to accomplish my project.

I am thankful to my internal project guide **Prof. Krutika Vartak** for her guidance and constant supervision as well as providing necessary information regarding the project & also for her support in completing the project.

My thanks and appreciation also goes to my friends and parents in developing the project and people who willingly helped me out with their abilities.

Finally, I would like to thank entire M.C.A department who directly or indirectly helped me in completion of this project.

**Riya Pravin Suvarna & Sayali Chandrakant Nachare**

**FY.MCA**

## ABSTRACT

- Steganography is the art of hiding the fact that communication is taking place, by hiding information in other information.
- Android is a software platform and operating system for mobile devices. This is a project that is used to perform secret data transmission by performing encryption of text on images. The sender uses a key to perform encryption and the same key is given to the receiver to decrypt and obtain the data.

**Riya Pravin Suvarna & Sayali Chandrakant Nachare**

**FY.MCA**

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# Chapter 1: Introduction

## 1.1 Introduction

### 1.1.1 Problem Definition:

- Steganography is the art of hiding the fact that communication is taking place, by hiding information in other information.
- Android is a software platform and operating system for mobile devices. This is a project that is used to perform secret data transmission by performing encryption of text on images. The sender uses a key to perform encryption and the same key is given to the receiver to decrypt and obtain the data.
- Encryption of data on images provides a safe and secure transmission of data between the sending and receiving party.
- The data/text which the sender wants to transmit is selected first and then an image is chosen from the current mobile device.
- The chosen text is then encrypted in the image such that the data is not visible to any third party.
- After encryption is performed, the image is sent to receiving party and the receiver decrypts the data using the key given by the sender.
- This decryption process can only be performed by an authenticated receiver using this application

### 1.1.2 Objective:

Main objective of this application is to provide a secure and secret transmission of text by encrypting it on an image using a key and which can only be decrypted by an authenticated receiver using the same key on the same application.

### 1.1.3 Scope of Project:

This project is developed for hiding information in any image file. The scope of the project is implementation of steganography tools for hiding information includes any type of information file and image files and the path where the user wants to save Image and extruded file.

## 1.2: Technical Details

### 1.2.1 Overview of Front End:

#### ❖ Android Studio:

- Android Studio is the official integrated development environment (IDE) for Android application development.
- There are some features of Android Studio:
  - ✓ Instant Run
  - ✓ Visual Editor/ Layout Editor
  - ✓ Firebase Plugin
  - ✓ APK Analyzer
  - ✓ Extensive testing tools and frameworks

#### ❖ Technology:

- Java:
  - Java is a popular general-purpose programming language and computing platform.
  - Java, the programming language used to develop Android applications.
  - Features of JAVA:
    - ✓ Fast
    - ✓ Reliable
    - ✓ Secure

## Chapter 2: System Study and Planning

### 2.1 System Study:

#### 2.1.1 Existing System:

- The perspective of data security, which has always been an important aspect.
- Encryption of data/text was previously done using hash and cryptographic algorithms, which is written in binary form. Such encryption techniques are visible in a specific form and the intruder who is aware of binary text formats can easily read the text.
- In those times it provided a lot of security but as technology progressed many hackers also came into existence and it could not provide security upto that extent.

#### 2.1.2 Disadvantages of Existing system:

- Time consuming.
- Easy to extract messages.
- Hackers can hack the code.

#### 2.1.3 Proposed System:

- In this project we used many techniques to encrypt and make the data in-visible to any one (not even to the receiver). We used LSB (Least Significant Bit) format, stenography and cryptographic techniques to encrypt the data and the data/text being encrypted on an image will not be visible.
- The sender will use a key for security reasons and the same key should be used by receiving party to decrypt the image and obtain the text written on it.
- The image on which data encryption is being performed can be chosen from the existing device and after all the process completes, that image can be sent through Bluetooth or mail or google drive etc.

## 2.2 System Planning and Schedule:

### 2.2.1 S/W development Model:

#### Why not Water fall model?

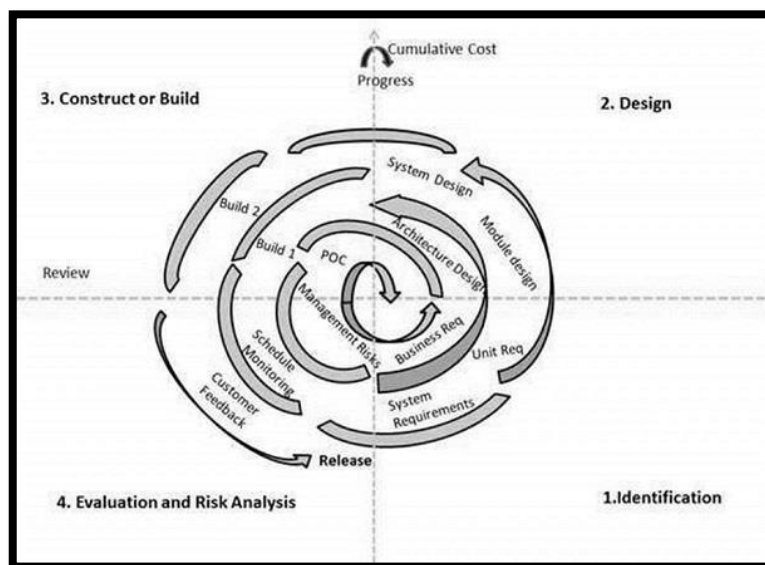
Water fall model can be adopted because in our case because requirements are known in advance but there are some limitations of waterfall model due to which it is not feasible to adopt:

- No parallelism of work.
- Time consuming.

#### Why Spiral Model?

The development life cycle model chosen for project is spiral model. This Spiral Model is a risk-driven process model generator for software projects. Based on unique risk patterns of given project, the spiral model guides a team to adopt elements of one or more process models, such as incremental waterfall or evolutionary prototyping.

- The spiral model is a risk driven process model generator for software project.
- This provides support for risk handling.
- It is an iterative model.
- It allows incremental releases of product or incremental refinement through each iteration around the spiral



### Phases of spiral model are:

1. Identification
2. Design
3. Construct or Build
4. Evaluation and risk analysis

#### 1. Identification:

- This phase consists of gathering the requirements for this project.

#### 2. Design:

- This interface of system is developed keeping in mind that it should be good looking, attract at first sight, easy to understand and self-explanatory.

#### 3. Construction:

- The scope clearly defines the boundaries of proposed system.
  1. The system will bridge the gap between the seller and the customer.
  2. They all can communicate each other and availability of thing will increase.

### The main features while executions phases are:

- **Efficiency**

The Efficiency of any system is concerned with the minimum processing time as well as the optimal use of application resource in designing the proposed system; the efficiency factor has been taken well into consideration.

- **User-Friendly Interface**

The interface will be user friendly so that a common user can use It easily. It makes it very easy for user to jump from one section to another. Another uniqueness of design that it is based on fluid interface it can adjust itself accordingly to device in which application is being used.

- **Data Security and Integrity**

Data Security and integrity is our top most priority we will make sure that private data of every single user remains confidential and never be compromised. For this purpose, we will use efficient security mechanisms.

- **Feasibility**

Our application solution is aimed to provide with: Technology and Control.

- **Extensibility**

Key features of proposed solution would be its extensibility. Our solution enables a new level's of remote automation, programmability and extensibility using modern technology.

- **Scalability**

Scalability can be defined as the ease with which a application or components can be modified to fit the problems are. Our system will easily be modified.

#### 4. Evaluation and risk analysis

- Risk Analysis include identifying, estimating and monitoring technical feasibility and management risks such as loss of internet connection or done legacy problems.
- Evaluation is the process which overcomes all the risk analysis and modified the risk analysis and modified the application and adds various data or keeps the application updated.

## Chapter 3: System Design

### 3.1 Software Requirement Specification (SRS):

#### 3.1.1 Introduction of SRS:

##### ❖ External Interface Requirement

The external system is to assume full responsibility for storage functions as well as warehouse management and warehouse control for an entire warehouse. The interfaces in this section are specified by documenting: the name and description of each scheme, source or input, destination or output, range's, accuracy and tolerances, units of measure, timing, delay formats, and display formats and organization and data formats. The user interface required to be developed for the system should be user-friendly and attractive. The interface between the user and the system will be IMP (Icons, Menu, Pointers) keeping in mind that the system is to be run through a web browser. All operations will be off point and click nature with all navigations performed through application specifically buttons and menus:

**Buttons:** the button is activated when the user will click on the left click of the mouse within the bounds of the button. And thus the action associated with it will be carried out.

**Menu:** All the operations will be arranged.

##### ❖ Functional requirements:

- Functional requirements are those requirements that are used to illustrate the internal working nature of the application, the description of the system and explanation of each subsystem.
- It consists of what task the application should perform, the processes involve, which data should the application holds and the interfaces with the user.

##### ❖ Non-functional requirements:

- It describes aspects of the application that are concerned with how the application provides the non-functional requirements i.e., it specifies the criteria that can be used to judge the system attributes:
  - ✓ **Portability:** The system is developed for secured purpose, so it can't be portable.
  - ✓ **Availability:** This application will be available only until the application on which it is install, is running.
  - ✓ **Scalability:** Applicable.

### 3.1.2 Technology Requirements:

#### 1] Hardware requirement: -

- **Processor:** Intel dual core or above
- **Processor Speed:** 1.0GHZ or above
- **RAM:** 4GB RAM or above
- **Hard Disk:** 500GB hard disk or above

#### 2] Software Requirement:-

- **Language:** Java JDK, Android SDK, Android Mobile Device

#### 3] Functional Requirements:-

Users of the Image Steganography, must be provided the following functionality:

- Browsing image for encoding.
- Entering secret message.
- Entering secret password.
- Saving the encoded image.
- Taking saved encoded image for decoding.
- Entering secret key for decoding.
- Decoding the encoded image.

#### 4] Non-functional requirements:-

##### Performance criteria:

##### Time:

The elapsed time between the encoding and decoding of message should be as minimum as possible.

##### User-friendly:

Our Image Steganography application should be more users friendly. The user interface should be kept simple and uncluttered. Since the different type of people will interact with this process so our project should be very easy to them to understand.

##### Flexibility:

Our project should be so flexible that whenever we want to make changes in it very easily it can be done.

### **Portable:**

Our project should be portable on any platform and available on applications easily and at a faster speed than others.

### **Reusable:**

All the information should be easily get processed so that many users can interact with us very easily and very fast without any information destroyed.

### **3.1.2.1 Hardware to be used:**

- **Processor:** Intel dual core or above
- **Processor Speed:** 1.0GHZ or above
  - **RAM:** 4GB RAM or above
  - **Hard Disk:** 500 GB hard disk or above

### **3.1.2.2 Software/tools to be used:**

- **Language:** Java JDK, Android SDK, Android Mobile Device

## 3.2 Detailed life Cycle of the Project

### 3.2.1 Modules:

A module is a collection of source files and build settings that allow you to divide your project into discrete units of functionality. Your project can have one or many modules, and one module may use another module as a dependency. You can independently build, test, and debug each module.

Android Studio offers a few distinct types of module:

#### Android app module

Provides a container for your app's source code, resource files, and app level settings such as the module-level build file and Android Manifest file. When you create a new project, the default module name is "app".

In the **Create New Module** window, Android Studio offers the following types of app modules:

- Phone & Tablet Module
- Wear OS Module
- Android TV Module
- Glass Module

#### Feature module

Represents a modularized feature of your app that can take advantage of Play Feature Delivery. For example, with feature modules, you can provide your users with certain features of your app on-demand or as instant experiences through Google Play Instant.

#### Library module

Provides a container for your reusable code, which you can use as a dependency in other app modules or import into other projects. Structurally, a library module is the same as an app module, but when built, it creates a code archive file instead of an APK, so it can't be installed on a device.

In the Create New Module window, Android Studio offers the following library modules:

- **Android Library:** This type of library can contain all file types supported in an Android project, including source code, resources, and manifest files. The build result is an Android Archive (AAR) file that you can add as a dependency for your Android app modules.
- **Java Library:** This type of library can contain only Java source files. The build result is an Java Archive (JAR) file that you can add as a dependency for your Android app modules or other Java projects.

### 3.2.2 Object Oriented Analysis & Design Diagrams:

#### 3.2.2.1) Use Case Diagram:-

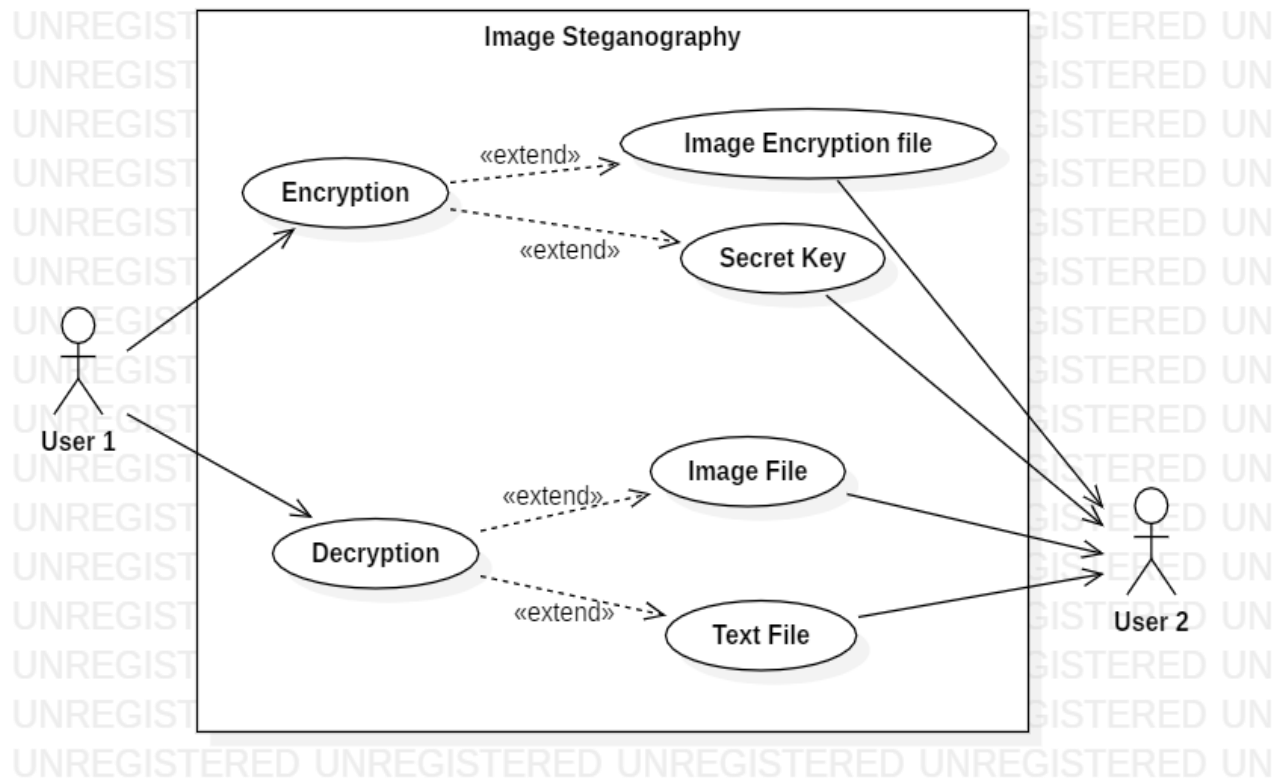


Figure: -Use Case diagram for Image Steganography

#### Assumptions:-

##### Actors:

The Actors of the system are User 1 and User 2

##### Use cases:

I have identified a set of use cases based on the functionalities and goals of the application.

- **Encryption-** This use case denotes a set of actions required for user to encrypt the image and create an Image encryption file and a secret key.
- **Decryption-** This use case denotes a set of actions required by another user to decrypt the message from the encrypted image using a secret key.

### 3.2.2.2) Activity Diagram:-

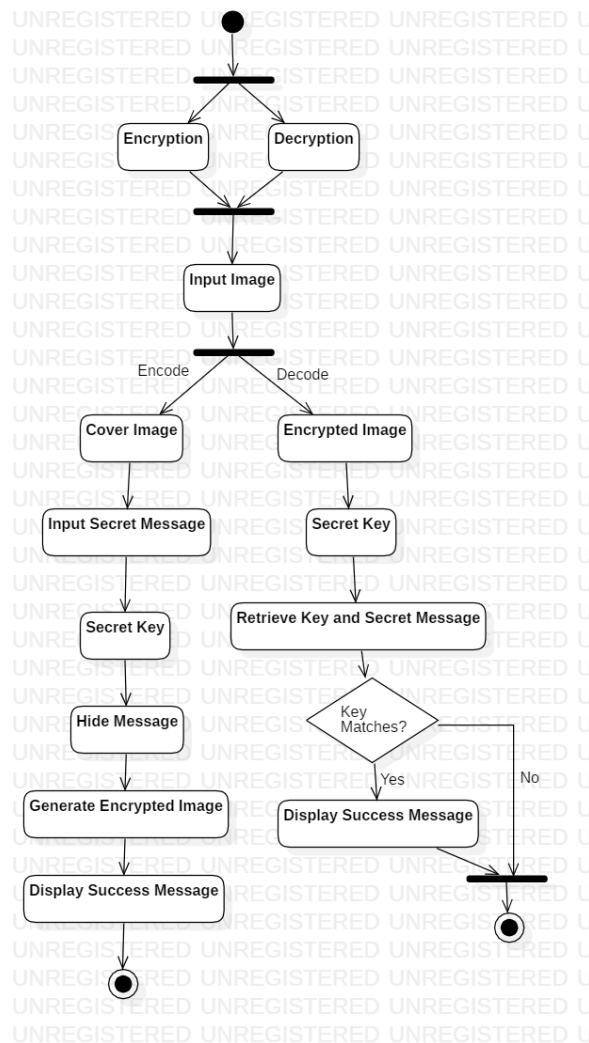


Figure: -Activity diagram for Image Steganography

#### Assumptions:-

- Firstly, the user starts with input the image file.
- Secret message is validated to determine whether the secret message is entered or not.
- The system only proceed if it receive the correct data.
- Secret Key and Secret Message is needed to generate encrypted image.
- Key is also validated whether the key is entered or not. After user select the output folder, the system may generate the Encrypted Image.
- Meanwhile, Encrypted image and the same Secret key is needed to retrieve the message back.
- If the key is not matched, the process end, else the secret message is displayed.

### 3.2.2.3) Class Diagram:-

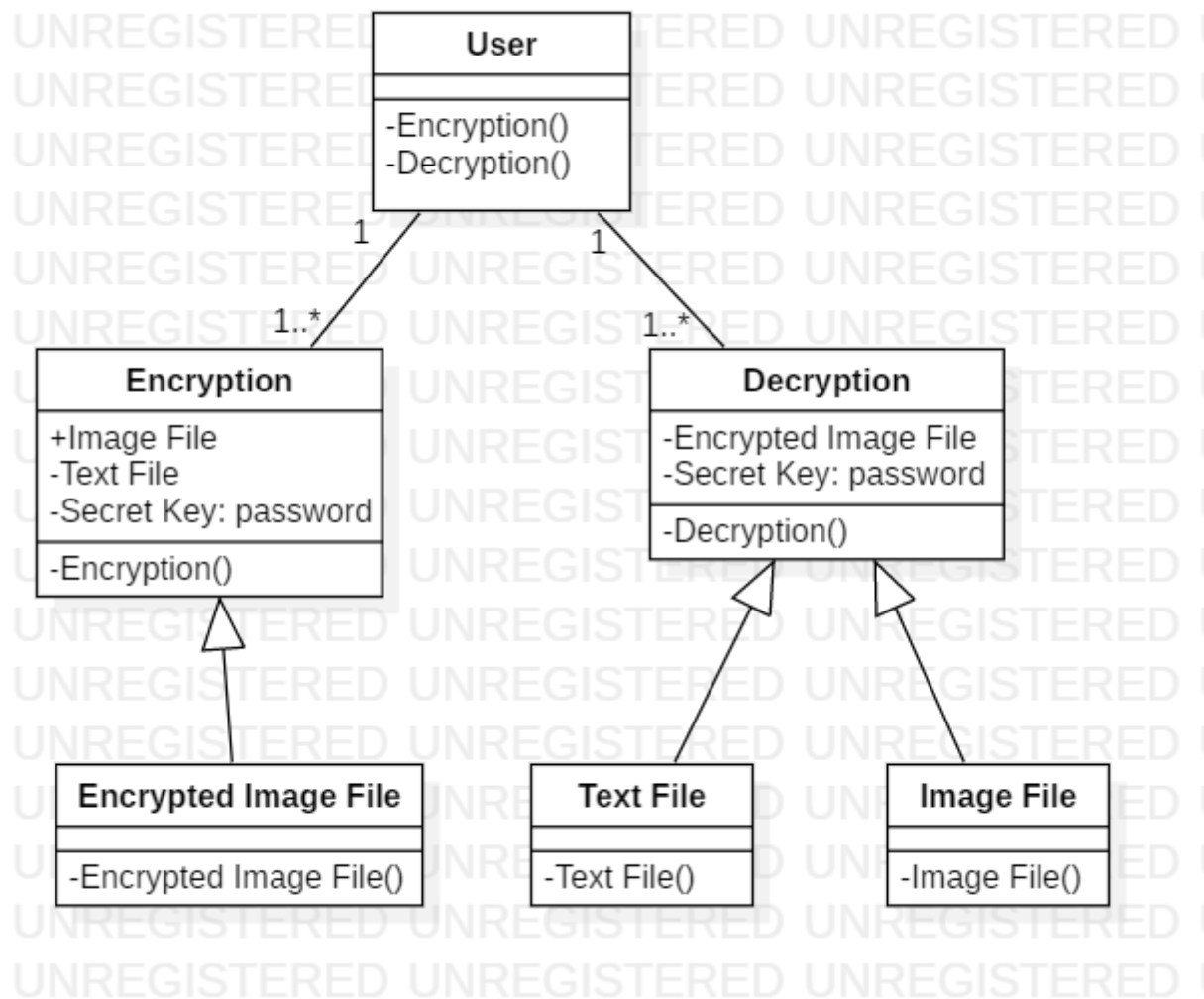


Figure: -Class diagram for Image Steganography

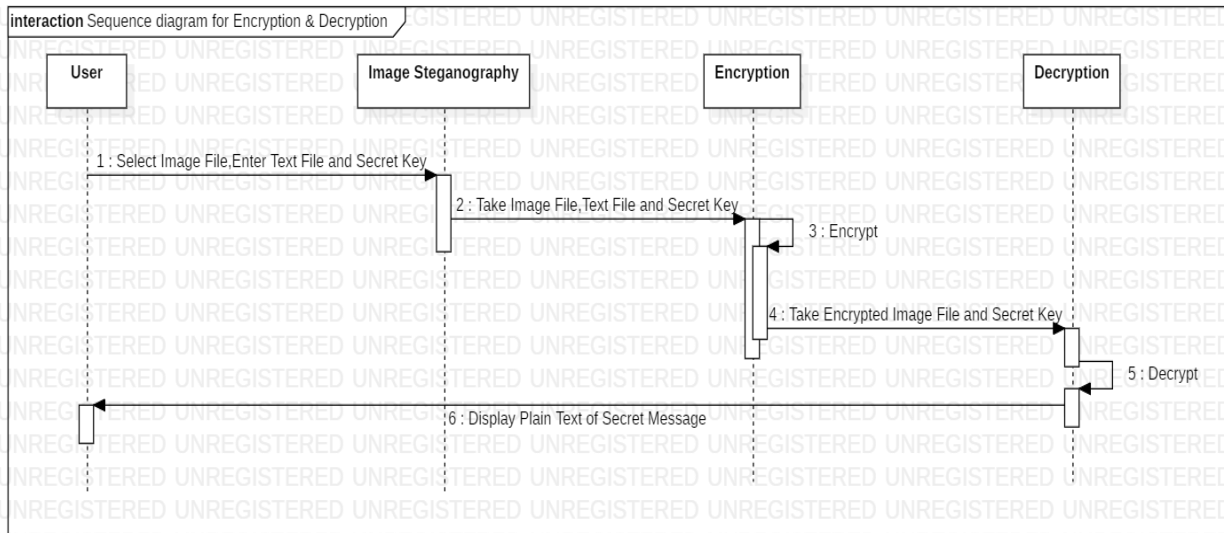
#### Assumptions:-

The following diagram is an example of Image Steganography Application. It describes a particular aspect of the entire application.

- First of all, User and Encryption, Decryption have a one-to-many relationship between each other.
- User are identified as the element of the system. They have a one-to-many relationship
- Encryption class is an abstract class and it has one concrete class (Generalization relationship) Encrypted Image File.
- Decryption class is an abstract class and it has two concrete classes (Generalization relationship) Text File and Image File.

### 3.2.2.4) Sequence Diagram:-

#### A. Sequence diagram for Encryption & Decryption



#### Assumptions:

A sequence diagram shows, as parallel vertical lines, different processes or objects that live simultaneously, and, as horizontal arrows, the messages exchanged between them, in the order in which they occur. This allows the specification of simple runtime scenarios in a graphical manner

- For instance, the UML diagram describes the sequences of messages of a (simple) Image Steganography.
- This diagram represents a User performing the encryption and decryption process.
- The dotted lines extending downwards indicate the timeline.
- Time flows from top to bottom.
- The arrows represent messages from an actor or object to other objects.

For example, the user sends image file, text file and secret key for encryption process.

### 3.2.2.5) Flowchart diagram:-

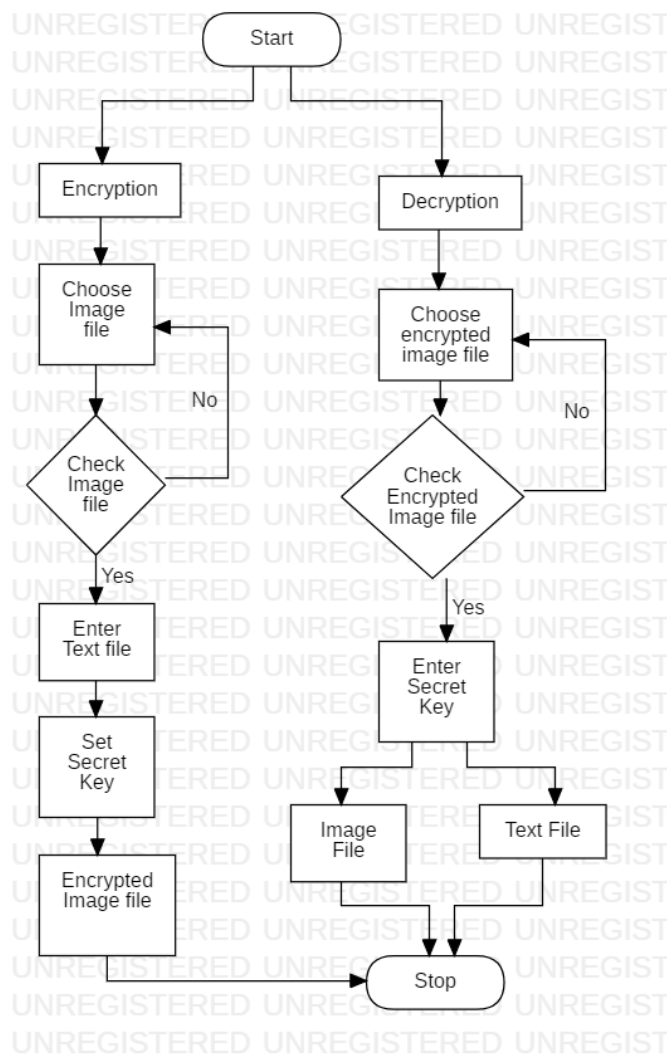


Figure: -Flow Chart diagram for Image Steganography

#### Assumptions:-

- Firstly, the user starts with input the image file.
- Secret message is validated to determine whether the secret message is entered or not.
- The system only proceed if it receive the correct data.
- Secret Key and Text File is needed to generate encrypted image.
- Key is also validated whether the key is entered or not then the system may generate the Encrypted Image.
- Meanwhile, Encrypted image and the same Secret key is needed to retrieve the message back.
- If the key is not matched, the process end, else the secret message is displayed.

### 3.2.3 Database

#### 3.2.3.1) Database Table:-

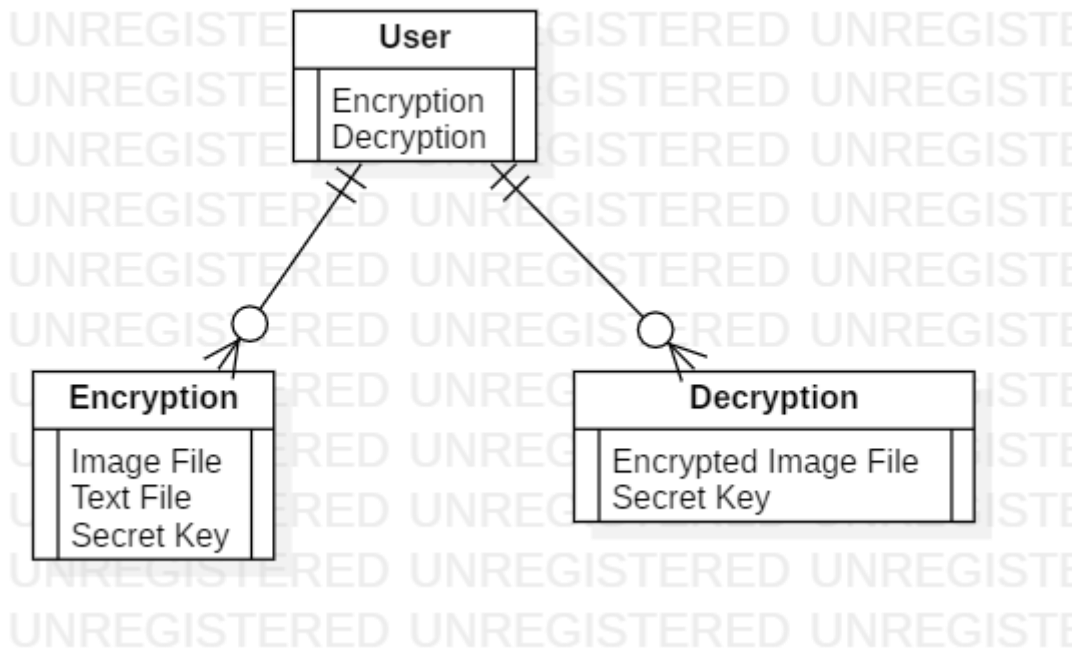


Figure: -Database Relationship diagram for Image Steganography

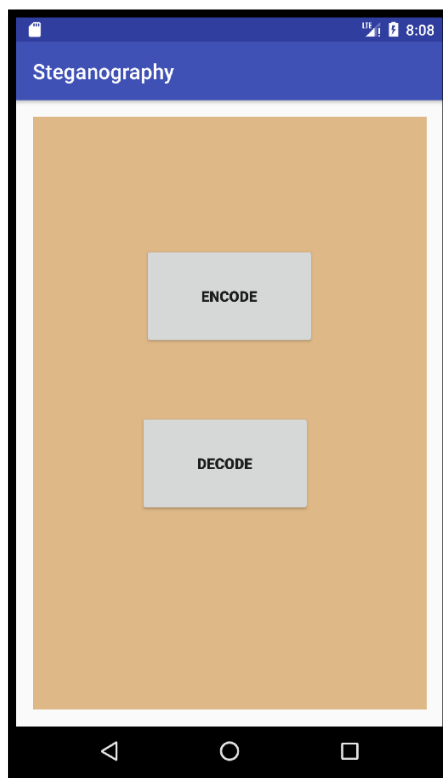
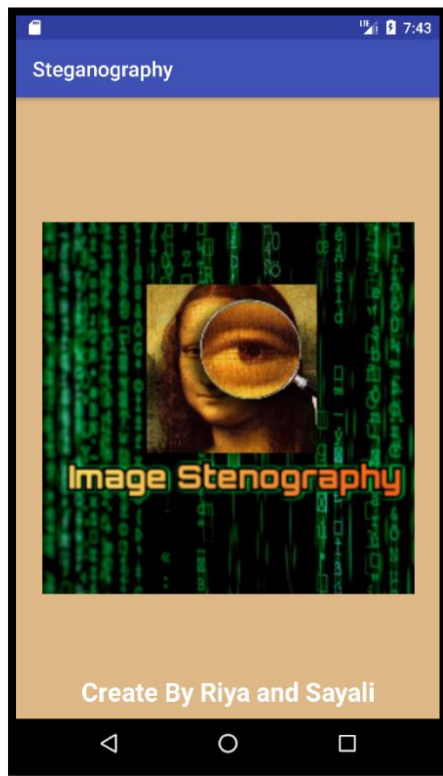
#### Assumptions:-

The following diagram is an example of Image Steganography Application. It describes the database relationship diagram, but our system has no database.

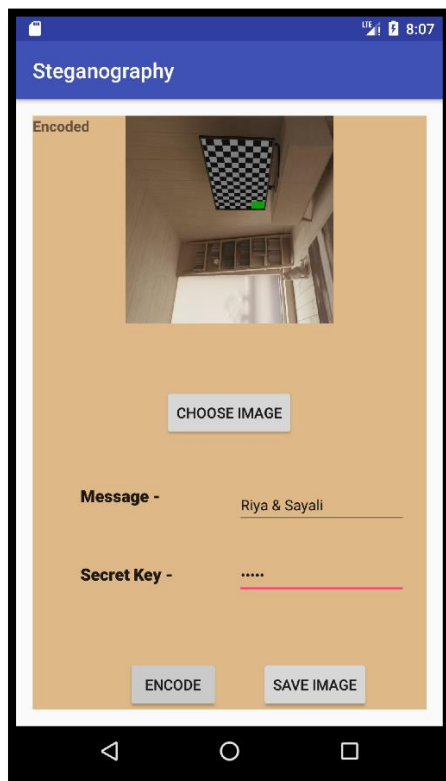
- First of all, User and Encryption, Decryption have a one-to-many relationship between each other.
- User are identified as the element of the system. They have a one-to-many relationship

## 3.2.4 I/O Screen Layout:-

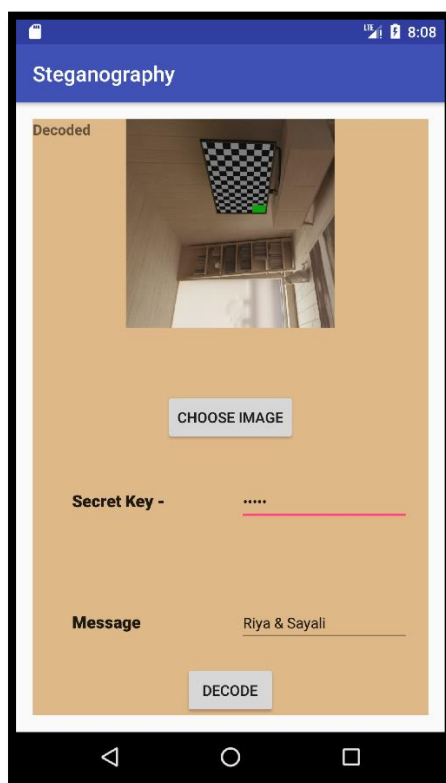
### Splash Screen:-



## Encryption Screen:-



## Decryption Screen:-



## Chapter 4: Testing

### 4.1 Methodologies used for testing

Testing is a process of executing a program with the intent of finding an error. Testing is a crucial element of software quality assurance and presents ultimate review of specification, design and coding.

System Testing is an important phase. Testing represents an interesting anomaly for the software. Thus a series of testing are performed for the proposed system before the system is ready for user acceptance testing.

A good test case is one that has a high probability of finding an as undiscovered error. A successful test is one that uncovers an as undiscovered error.

#### Testing Objectives:

1. Testing is a process of executing a program with the intent of finding an error
2. A good test case is one that has a probability of finding an as yet undiscovered error
3. A successful test is one that uncovers an undiscovered error

The primary objective for test case design is to derive a set of tests that has the highest livelihood for uncovering defects in software. To accomplish this objective two different categories of test case design techniques are used. They are

- White box testing.
- Black box testing.

#### White-box testing:

White box testing focus on the program control structure. Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

#### Block-box testing:

Black box testing is designed to validate functional requirements without regard to the internal workings of a program. Black box testing mainly focuses on the information

domain of the software, deriving test cases by partitioning input and output in a manner that provides through test coverage. Incorrect and missing functions, interface errors, errors in data structures, error in functional logic are the errors falling in this category.

All these phases go through the process of software testing levels. There are mainly three testing levels which are as follows:

1. Unit Testing

2. Integration Testing

3. System Testing

- 1. Unit Testing:**

- A Unit is a smallest testable portion of system or application which can be compiled, linked, loaded, and executed. we tested each module separately.
- The aim is to test each part of the software by separating it. It checks that component are fulfilling functionalities or not. we tested all the modules which is working properly or not.

- 2. Integration Testing:**

- Integration means combining. In this testing phase, different application modules are combined and tested as a group to make sure that integrated system is ready for system testing.
- Integrating testing checks the data flow from one module to other modules. we tested all the activities in the manner of integration testing.

- 3. System Testing:**

- System testing is performed on a complete, integrated system. It allows checking system's compliance as per the requirements.
- It tests the overall interaction of components. It involves load, performance, reliability and security.
- System testing is the final testing to verify that the system meets the specification. It evaluates both functional and non-functional need for the testing.
- In system testing we checked all encryption and decryption process are workable, properly or not, and ensuring that the all activities are correct or not.

**Test Cases:**

Test cases are derived to ensure that all statements in the program have been executed at least once during testing and that all logical conditions have been executed.

Using White-Box testing methods, the software engineer can drive test cases that

- Guarantee that logical decisions on their true and false sides.
- Exercise all logical decisions on their true and false sides.
- Execute all loops at their boundaries and within their operational bounds.
- Exercise internal data structure to assure their validity.

The test case specification for system testing has to be submitted for review before system testing commences.

**Test Case table: -****1) Test Report:****Test Cases for User:**

Test case ID	Test scenario	Operator action	Actual result	Remark
T01	Encryption	Enter Image, Text and secret key	Encrypted Image.	Test Successful.
T02	Decryption	Enter Encrypted Image, and secret key	Decrypted image with Text.	Test Successful.

## Chapter 5: Conclusion

- To secure the private information or the confidential information from the attacks the proposed system is developed.
- Whenever we send the confidential files to the receiver there might be the chance to use this information by the third party person without the senders permission.
- For the solution for this there is cryptography and the steganography processes are invented.
- In the proposed system we used the Image steganography process, in that we used the image as a hiding source.
- We can encrypt as well as decrypt the file with the help of image.

## Chapter 6: Future Enhancement

- This mobile application is used to secure the confidential or the private information from the other persons.
- It is very useful because of the main feature of this application i.e Secret key password which is known to sender and receiver only.
- As the technology emerges, it is possible to upgrade the system and can be adaptable to desired environment.
- Because it is based on object-oriented design, any further changes can be easily adaptable.

## Chapter 7: References

**Website: -**

Sr. No	Website Link	Visited date
1	<a href="http://www.Neonprojects.com">www.Neonprojects.com</a>	19 May 2022
2	<a href="http://www.w3schools.com">www.w3schools.com</a>	21 May 2022
3	<a href="http://www.stackoverflow.com">www.stackoverflow.com</a>	1 June 2022
4	<a href="http://www.uml.com">www.uml.com</a>	5 June 2022
5	<a href="https://github.com">https://github.com</a>	18 June 2022