

Savitribai Phule Pune University, Pune
TE (Civil Engineering) 2019 Pattern
(With effect from Academic Year 2021-22)

SEMESTER: V

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks						Credit					
		Theory	Practical	Tutorial	IN-Sem	End-Sem	TW	PR	OR	Total	TH	TW	PR	OR	TUT	Total
301001	Hydrology and Water Resources Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301002	Water Supply Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301003	Design of Steel Structures	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301004	Engineering Economics and Financial Management	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301005	Elective I	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301006	Seminar	--	--	01	--	-	50	--	--	50	--	--	--	--	01	01
301007	Hydrology and Water Resources Engineering Lab	--	02	--	--	--	25	--	--	25	--	01	--	--	--	01
301008	Water Supply Engineering Lab	--	02	--	--	--	--	50	--	50	--	--	01	--	--	01
301009	Design of Steel Structures Lab	--	04	--	--	--	--	--	50	50	--	--	--	02	--	02
301010	Elective I Lab	--	02	--	--	--	25	--	--	25	--	01	--	--	--	01
301011	Audit Course I: Professional Ethics and Etiquettes/ Sustainable Energy Systems	--	--	01	--	GR	--	--	--	GR	--	--	--	--	--	--
Total		15	10	02	150	350	100	50	50	700	15	02	01	02	01	21

Abbreviations: TH : Theory, TW: Term Work, PR : Practical, OR: Oral, TUT : Tutorial, GR: Grade

Elective I: 301005

S N	Course Code	Course Name
01	301005 a	Advanced Fluid Mechanics and Hydraulic Machines
02	301005 b	Research Methodology and IPR
03	301005 c	Construction Management
04	301005 d	Advanced Concrete Technology
05	301005 e	Matrix Methods of Structural Analysis
06	301005 f	Advanced Mechanics of Structures

SEMESTER-VI																
Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit						
		Theory	Practical	Tutorial	IN-Sem	End-Sem	TW	PR	OR	Total	TH	TW	PR	OR	TUT	Total
301012	Waste Water Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301013	Design of RC Structures	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301014	Remote Sensing and GIS	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301015	Elective II	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
301016	Internship	--	--	--	--	--	100	--	--	100	--	04	--	--	--	04
301017	Waste Water Engineering Lab	--	02	--	--	--	--	--	50	50	--	--	01	--	--	01
301018	Design of RC Structures Lab	--	04	--	--	--	--	--	50	50	--	--	02	--	--	02
301019	Remote Sensing and GIS Lab	--	02	--	--	--	50	--	--	50	--	01	--	--	--	01
301020	Elective II Lab	--	02	--	--	--	50	--	--	50	--	01	--	--	--	01
301021	Audit Course II: Leadership and Personality Development/Industrial Safety	--	--	01	--	GR	--	--	--	GR		--	--	--	--	--
Total		12	10	01	120	280	200	--	100	700	12	06	--	03	--	21
Abbreviations: TH : Theory, TW: Term Work, PR : Practical, OR: Oral and TUT : Tutorial, GR: Grade																

Elective II: 301015

S N	Course Code	Course Name
01	301015 a	Advanced Engineering Geology with Rock Mechanics
02	301015 b	Soft Computing Techniques
03	301015 c	Advanced Surveying
04	301015 d	Advanced Geotechnical Engineering
05	301015 e	Architecture and Town Planning
06	301015 f	Solid Waste Management

Semester V

Course Code	Course Name	Teaching Scheme (Hours/week)			Examination Scheme and Marks					Credit Scheme				
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral	Total	Lecture	Practical	Tutorial	
310241	Database Management Systems	03	-	-	30	70	-	-	-	100	03	-	-	03
310242	Theory of Computation	03	-	-	30	70	-	-	-	100	03	-	-	03
310243	Systems Programming and Operating System	03	-	-	30	70	-	-	-	100	03	-	-	03
310244	Computer Networks and Security	03	-	-	30	70	-	-	-	100	03	-	-	03
310245	Elective I	03	-	-	30	70	-	-	-	100	03	-	-	03
310246	Database Management Systems Laboratory	-	04	-	-	-	25	25	-	50	-	02	-	02
310247	Computer Networks and Security Laboratory	-	02	-	-	-	25	-	25	50	-	01	-	01
310248	Laboratory Practice I	-	04	-	-	-	25	25	-	50	-	02	-	02
310249	Seminar and Technical Communication	-	-	01	-	-	50	-	-	50	-	-	01	01
Total		15	10	01	150	350	125	50	25	700	15	05	01	21
310250	Audit Course 5											Grade		
													Total Credit	
310245 Elective I Options: 310245(A) Internet of Things and Embedded Systems 310245(B) Human Computer Interface 310245(C) Distributed Systems 310245(D) Software Project Management							310250 Audit Course 5 Options: 310250 (A) Cyber Security 310250 (B) Professional Ethics and Etiquettes 310250 (C) Learn New Skills 310250 (D) Engineering Economics 310250 (E) Foreign Language							
Laboratory Practice I Assignments from Systems Programming and Operating System and Elective I														

Semester VI

Course Code	Course Name	Teaching Scheme (Hours/week) \$\$			Examination Scheme and Marks						Credit Scheme						
		\$\$ Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral	Total	Lecture	Practical	Tutorial	Total			
310251	Data Science and Big Data Analytics	04	-	-	30	70	-	-	-	100	03	-	-	03			
310252	Web Technology	04	-	-	30	70	-	-	-	100	03	-	-	03			
310253	Artificial Intelligence	04	-	-	30	70	-	-	-	100	03	-	-	03			
310254	Elective II	04	-	-	30	70	-	-	-	100	03	-	-	03			
310255	Internship**	-	-	-	-	-	100 **	-	-	100	-	-	-	04 **			
310256	Data Science and Big Data Analytics Laboratory	-	04	-	-	-	50	25	-	75	-	02	-	02			
310257	Web Technology Laboratory	-	02	-	-	-	25	-	25	50	-	01	-	01			
310258	Laboratory Practice II	-	04	-	-	-	50	25	-	75	-	02	-	02			
Total		12	10	-	120	280	225	50	25	700	12	09	-	21			
310259	Audit Course 6											Grade					
													Total	12	09	-	21

310254 Elective II Options:

- 310254(A) [Information Security](#)
- 310254(B) [Augmented and Virtual Reality](#)
- 310254(C) [Cloud Computing](#)
- 310254(D) [Software Modeling and Architectures](#)

310259 Audit Course 6 Options:

- 310259(A) [Digital and Social Media Marketing](#)
- 310259(B) [Sustainable Energy Systems](#)
- 310259(C) [Leadership and Personality Development](#)
- 310259(D) [Foreign Language](#)
- 310259(E) [Learn New Skills](#)

Laboratory Practice II:Assignments from **Artificial Intelligence** and **Elective II**.**** Internship:****Internship** guidelines are provided in course curriculum sheet.**\$\$ Hours/Week for Theory Course in Third Year of Engineering, Semester VI:**

As per the apex bodies' recommendations and guidelines, it is need of the day to train the pre-final year students for the industrial readiness through internship. As per the guidelines of AICTE, the duration of internship is 4-6 weeks after completion of semester V and before commencement of semester VI, so it is apparent that the contact hours of the TE students need to be managed meticulously. It becomes mandatory as per the structure that 4 credits for internship must be earned by the students. **Per semester, 15 weeks duration that is suggested ideally by the affiliated university will eventually reduce to fruitful 12 weeks after the implementation of the revised curriculum (2019 Course). With the evaluatory introduction of internship in the structure, we are left with the choice of 4 theory courses in the sixth semester with 12 weeks instead of traditional 15 weeks.** To balance the credits and to achieve the minimum required contact hours, it is the reasonable choice to allot 4 hours / week for each theory course of the sixth semester of Third year of Engineering. The additional one lecture/ week will definitely be instrumental in achieving the largest of minimum contact hours. As such there is no correspondence of weekly load and credits earned, the credit allotted per course remain intact despite of the change. **So it is almost imperative that the commencement of VI Semester need to be approx. 3 weeks beyond the schedule.**

Savitribai Phule Pune University, Pune
T.E. (Electronics & Telecommunication Engineering) 2019 Course
(With effect from Academic Year 2021-22)

Semester-V

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit				
		Theory	Practical	Tutorial	In-Sem	End-Sem	TW	PR	OR	Total	TH	PR	TUT	Total
304181	Digital Communication	03	-	-	30	70	-	-	-	100	03	-	-	03
304182	Electromagnetic Field Theory	03	-	01	30	70	25	-	-	125	03	-	01	04
304183	Database Management	03	-	-	30	70	-	-	-	100	03	-	-	03
304184	Microcontrollers	03	-	-	30	70	-	-	-	100	03	-	-	03
304185	Elective - I	03	-	-	30	70	-	-	-	100	03	-	-	03
304186	Digital Communication Lab	-	02	-	-	-	-	50	-	50	-	01	-	01
304187	Database Management Lab	-	02	-	-	-	-	-	25	25	-	01	-	01
304188	Microcontroller Lab	-	02	-	-	-	-	50	-	50	-	01	-	01
304189	Elective I Lab	-	02	-	-	-	-	25	-	25	-	01	-	01
304190	Skill Development	-	02	-	-	-	25	-	-	25	-	01	-	01
304191A	Mandatory Audit Course 5 &	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		15	10	01	150	350	50	125	25	700	-			-
Total Credit											15	05	01	21

Elective -I

- 1) Digital Signal Processing
- 2) Electronic Measurements
- 3) Fundamentals of JAVA Programming
- 4) Computer Networks

Savitribai Phule Pune University, Pune
T.E. (Electronics & Telecommunication Engineering) 2019 Course
(With effect from Academic Year 2021-22)

Semester-VI

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit				
		Theory	Practical	Tutorial	In-Sem	End-Sem	TW	PR	OR	Total	TH	PR	TUT	
304192	Cellular Networks	03	-	-	30	70	-	-	-	100	03	-	-	03
304193	Project Management	03	-	-	30	70	-	-	-	100	03	-	-	03
304194	Power Devices & Circuits	03	-	-	30	70	-	-	-	100	03	-	-	03
304195	Elective-II	03	-	-	30	70	-	-	-	100	03	-	-	03
304196	Cellular Networks Lab	-	02	-	-	-	-	-	50	50	-	01	-	01
304197	Power Devices & Circuits Lab	-	02	-	-	-	-	50	-	50		01		01
304198	Elective-II Lab	-	02	-	-	-	-	25	-	25	-	01	-	01
304199	Internship**	-	-	-	-	-	100	-	-	100	-	-	04	04
304200	Mini Project	-	04	-	-	-	25	-	50	75	-	02	-	02
304191 B	Mandatory Audit Course 6 &	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total	12	10	00	120	280	125	75	100	700			
Total Credit											12	05	04	21

Abbreviations:

In-Sem: In semester

End-Sem: End semester

TH: Theory

TW : Term Work

PR: Practical

OR: Oral

TUT: Tutorial

Note: Students of T.E. (Electronics & Telecommunications) have to opt any one of the audit course from the list of audit courses prescribed by BoS (Electronics & Telecommunications Engineering)

Elective -II

- 1) Digital Image Processing
- 2) Sensors in Automation
- 3) Advanced JAVA Programming
- 4) Embedded Processors
- 5) Network Security

Savitribai Phule Pune University Third Year of Information Technology (2019 course) (With effect from Academic Year 2021-22)													
Semester-V													
Course Code	Course Name	Teaching Scheme (Hours/ week)			Examination Scheme and Marks					Credit Scheme			
		Theory	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral	Total	Lecture	Practical	Tutorial
314441	Theory of Computation	03	-	-	30	70	-	-	-	100	3	-	-
314442	Operating Systems	03	-	-	30	70	-	-	-	100	3	-	-
314443	Machine Learning	03	-	-	30	70	-	-	-	100	3	-	-
314444	Human Computer Interaction	03	-	-	30	70	-	-	-	100	3	-	-
314445	Elective-I	03	-	-	30	70	-	-	-	100	3	-	-
314446	Operating Systems Lab	-	04	-	-	-	25	25	-	50	-	2	-
314447	Human Computer Interaction- Lab	-	02	-	-	-	-	-	50	50	-	1	-
314448	Laboratory Practice-I	-	04	-	-	-	25	25	-	50	-	2	-
314449	Seminar	-	01	-	-	-	50	-	-	50	-	1	-
314450	Audit Course 5	-	-	-	-	-	-	-	-	-	-	-	-
Total Credit										15	06	-	21
Total	15	11	-	150	350	100	50	50	700	15	06	-	21

Abbreviations: TH: Theory, TW: Term Work, PR: Practical , OR: Oral , TUT: Tutorial

Elective-I:

[314445A](#)- Design and Analysis of Algorithm
[314445B](#)- Advanced Database and Management System
[314445C](#)- Design Thinking
[314445D](#)- Internet of Things

Laboratory Practice-I:

Assignment from Machine Learning and Elective I

Note: Students of T.E. (Information Technology) can opt any one of the audit course from the list of audit courses prescribed by BoS (Information Technology)

Audit Course 5:

[314450A](#)-Banking and Insurance
[314450B](#)-Startup Ecosystems
[314450C](#)- Foreign Language-(Japanese Language- III)

Savitribai Phule Pune University Third Year of Information Technology (2019 Course) (With effect from Academic Year 2021-22)																								
Semester-VI																								
Course Code	Course Name	Teaching Scheme (Hours/ week)			Examination Scheme and Marks						Credit Scheme													
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term Work	Practical	Oral	Total	Lecture	Practical	Tutorial	Total										
<u>314451</u>	Computer Networks& Security	03	-	-	30	70	-	-	-	100	03			03										
<u>314452</u>	Data Science and Big Data Analytics	03	-	-	30	70	-	-	-	100	03			03										
<u>314453</u>	Web Application Development	03	-	-	30	70	-	-	-	100	03			03										
<u>314454</u>	Elective-II	03	-	-	30	70	-	-	-	100	03			03										
<u>314455</u>	Internship	-	04	-	-	-	100	-	-	100		04		04										
<u>314456</u>	Computer Networks& Security-Lab	-	04	-	-	-	25	-	50	75		02		02										
<u>314457</u>	DS & BDA-Lab	-	02	-	-	-	25	25	-	50		01		01										
<u>314458</u>	Laboratory Practice-II	-	04	-	-	-	50	25	-	75		02		02										
<u>314459</u>	Audit Course 6	-	-	-	-	-	-	-	-	-	-	-	-	-										
Total											12	09	-	21										
Total	12	14	-	120	280	200	50	50	700	12	09	-	21											
Abbreviations: TH: Theory, TW: Term Work, PR: Practical , OR: Oral, TUT: Tutorial																								
Elective-II:					Audit Course 6:																			
<u>314454A</u>- Artificial Intelligence					<u>314459A</u> - Green and Unconventional Energy																			
<u>314454B</u>- Cyber Security					<u>314459B</u> - Leadership and Personality Development																			
<u>314454C</u> -Cloud Computing					<u>314459C</u>- Foreign Language-(Japanese Language- IV)																			
<u>314454D</u>- Software Modeling and Design																								
Laboratory Practice-II:																								
Assignments from Web Application Development and Elective-II.																								
Note: Students of T.E. (Information Technology) can opt any one of the audit course from the list of audit courses prescribed by BoS (Information Technology)																								

Savitribai Phule Pune University
Board of Studies - Automobile and Mechanical Engineering
Undergraduate Program - Mechanical Engineering (2019 pattern)

Course Code	Course Name	Teaching Scheme (Hrs./week)			Examination Scheme and Marks					Credit																						
		TH	PR	TUT	ISE	ESE	TW	PR	OR	Total	TH	PR	TUT	Total																		
Semester-V																																
302041	Numerical & Statistical Methods	3	-	1	30	70	25	-	-	125	3	-	1	4																		
302042	Heat & Mass Transfer	3	2	-	30	70	-	50	-	150	3	1	-	4																		
302043	Design of Machine Elements	3	2	-	30	70	-	-	25	125	3	1	-	4																		
302044	Mechatronics	3	2	-	30	70	-	-	25	125	3	1	-	4																		
302045	Elective I	3	-	-	30	70	-	-	-	100	3	-	-	3																		
302046	Digital Manufacturing Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	1																		
302047	Skill Development	-	2	-	-	-	25	-	-	25	-	1	-	1																		
302048	Audit course - V\$	-	-	-	-	-	-	-	-	-	-	-	-	-																		
	Total	15	10	1	150	350	100	50	50	700	15	5	1	21																		
Semester-VI																																
302049	Artificial Intelligence & Machine Learning	3	2	-	30	70	-	-	25	125	3	1	-	4																		
302050	Computer Aided Engineering	3	2	-	30	70	-	50	-	150	3	1	-	4																		
302051	Design of Transmission Systems	3	2	-	30	70	-	-	25	125	3	1	-	4																		
302052	Elective II	3	-	-	30	70	-	-	-	100	3	-	-	3																		
302053	Measurement Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	1																		
302054	Fluid Power & Control Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	1																		
302055	Internship/Mini project *	-	4	-	-	-	100	-	-	100	-	4	-	4																		
302056	Audit course - VI\$	-	-	-	-	-	-	-	-	-	-	-	-	-																		
	Total	12	14	-	120	280	200	50	50	700	12	9	-	21																		
Elective-I							Elective-II																									
302045-A	Advanced Forming & Joining Processes	302052-A			Composite Materials																											
302045-B	Machining Science & Technology	302052-B			Surface Engineering																											
Abbreviations: TH: Theory, PR: Practical, TUT: Tutorial, ISE: In-Semester Exam, ESE: End-Semester Exam, TW: Term Work, OR: Oral																																
Note: Interested students of TE (Automobile Engineering and Mechanical Engineering) can opt for any one of the audit course from the list of audit courses prescribed by BOS (Automobile and Mechanical Engineering)																																
Instructions: <ul style="list-style-type: none"> Practical/Tutorial must be conducted in FOUR batches per division only. Minimum number of Experiments/Assignments in PR/Tutorial shall be carried out as mentioned in the syllabi of respective courses. Assessment of tutorial work has to be carried out similar to term-work. The Grade cum marks for Tutorial and Term-work shall be awarded on the basis of continuous evaluation. \$ Audit course is mandatory but non-credit course. Examination has to be conducted at the end of Semesters for award of grade at institute level. Grade awarded for audit course shall not be calculated for grade point & CGPA. 																																

302041: Numerical and Statistical Methods									
Teaching Scheme		Credits		Examination Scheme					
Theory	3Hrs./Week	Theory	3	In-Semester	30 Marks				
Tutorial	1Hr./Week	Tutorial	1	End-Semester	70 Marks				
				Term Work	25 Marks				
Prerequisites: System of linear equations, Partial differentiation, Statistics, Probability, Problem solving and programming.									
Course Objectives:									
<ol style="list-style-type: none"> UNDERSTAND applications of systems of equations and solve mechanical engineering applications. APPLY differential equations to solve the applications in the domain of fluid mechanics, structural, etc. LEARN numerical integration techniques for engineering applications. COMPARE the system's behavior for the experimental data. INTERPRET Statistical measures for quantitative data. ANALYZE datasets using probability theory and linear algebra. 									
Course Outcomes:									
On completion of the course the learner will be able to;									
CO1: SOLVE system of equations using direct and iterative numerical methods.									
CO2: ESTIMATE solutions for differential equations using numerical techniques.									
CO3: DEVELOP solution for engineering applications with numerical integration.									
CO4: DESIGN and CREATE a model using a curve fitting and regression analysis.									
CO5: APPLY statistical Technique for quantitative data analysis.									
CO6: DEMONSTRATE the data, using the concepts of probability and linear algebra.									
Course Contents									
Unit 1	Roots of Equation and Simultaneous Equations				07 Hrs.				
Roots of Equation: Bracketing method and Newton-Raphson method									
Solution of simultaneous equations: Gauss Elimination Method with Partial pivoting, Gauss-Seidel method, Thomas algorithm for Tri-diagonal Matrix.									
Unit 2	Numerical Solution of Differential Equations				08 Hrs.				
Ordinary Differential Equations [ODE]: Taylor series method, Euler Method, Runge-Kutta 4 th order. Simultaneous equations using Runge-Kutta 2 nd order method.									
Partial Differential Equations [PDE]: Finite difference method, Simple Laplace method, PDE's Parabolic explicit solution, Elliptic explicit solution.									
Unit3	Numerical Integration				06 Hrs.				
Numerical Integration (1D): Trapezoidal rule, Simpson's 1/3 rd Rule, Simpson's 3/8 th Rule, Gauss Quadrature 2-point and 3-point method.									
Double Integration: Trapezoidal rule, Simpson's 1/3 rd Rule.									

Savitribai Phule Pune University, Pune
BE (Civil Engineering) 2019 Pattern
(With effect from Academic Year 2022-23)

SEMESTER: VII

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit						
		Theory	Practical	Tutorial	IN-Sem	End-Sem	TW	PR	OR	Total	TH	TW	PR	OR	TUT	Total
401001	Foundation Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401002	Transportation Engineering	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401003	Elective III	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401004	Elective IV	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401005	Project Stage I	--	04	--	--	--	50	--	50	100	--	01	--	02	--	03
401006	Transportation Engineering Lab	--	02	--	--	--	--	--	50	50	--	--	--	01	--	01
401007	Elective III Lab	--	02	--	--	--	--	--	50	50	--	--	--	01	--	01
401008	Elective IV Lab	--	02	--	--	--	50	--	--	50	--	01	--	--	--	01
401009	Computer Programming in Civil Engineering	01	02	--	--	--	50	--	--	50	--	02	--	--	--	02
401010	Audit Course I Stress Management by Yoga / Communication Etiquette in Workplaces	--	--	01	--	GR	--	--	--	GR	--	--	--	--	--	--
Total		13	12	01	120	280	150	--	150	700	12	04	--	04	--	20

Abbreviations: TH : Theory, TW: Term Work, PR : Practical, OR: Oral, TUT : Tutorial, GR: Grade

Elective III and IV

S N	Course Code	Elective III: Course Name		Course Code	Elective IV: Course Name	
01	401003 a	Coastal Engineering		401004 a	Air Pollution and Control	
02	401003 b	Advanced Design of Concrete Structures		401004 b	Advanced Design of Steel Structures	
03	401003 c	Integrated Water Resources Planning & Management		401004 c	Statistical Analysis and Computational Method	
04	401003 d	Finite Element Method		401004 d	Airport and Bridge Engineering	
05	401003 e	Data Analytics		401004 e	Design of Prestressed Concrete Structures	
06	401003 f	Operation Research		401004 f	Formwork and Plumbing Engineering	

SEMESTER-VIII																
Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit						
		Theory	Practical	Tutorial	IN-Sem	End-Sem	TW	PR	OR	Total	TH	TW	PR	OR	TUT	Total
401011	Dams and Hydraulics Structures	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401012	Quantity Surveying, Contracts and Tenders	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401013	Elective V	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401014	Elective VI	03	--	--	30	70	--	--	--	100	03	--	--	--	--	03
401015	Project Stage II	--	10	--	--	--	100	--	50	150	--	03	--	02	--	05
401016	Dams and Hydraulics Structures Lab	--	02	--	--	--	--	--	50	50	--	--	--	01	--	01
401017	Quantity Surveying, Contracts and Tenders Lab	--	02	--	--	--	--	--	50	50	--	--	--	01	--	01
401018	Elective V Lab	--	02	--	--	--	50	--	--	50	--	01	--	--	--	01
401019	Audit Course II Social Responsibility / Human Rights	--	--	01	--	GR	--	--	--	GR	--	--	--	--	--	--
Total		12	16	01	120	280	150	--	150	700	12	04	--	04	--	20
Abbreviations: TH : Theory, TW: Term Work, PR : Practical, OR: Oral and TUT : Tutorial, GR: Grade																

Elective V and VI

S N	Course Code	Elective V: Course Name	Course Code	Elective VI: Course Name
01	401013 a	Earthquake Engineering	401014 a	TQM and MIS
02	401013 b	Structural Design of Bridges	401014 b	Advanced Transportation Engineering
03	401013 c	Irrigation and Drainage	401014 c	Geo Synthetic Engineering
04	401013 d	Design of Precast and Composite Structures	401014 d	Structural Design of Foundations
05	401013 e	Hydropower Engineering	401014 e	Green Structures and Smart Cities
06	401013 f	Structural Audit and Retrofitting of Structures	401014 f	Rural Water Supply and Sanitation



BE Computer Engineering 2019 Course tentative Curriculum structure:

Savitribai Phule Pune University Fourth Year of Computer Engineering (2019 Course) (With effect from Academic Year 2022-23)														
Semester VII														
Course Code	Course Name	Teaching Scheme (Hours/week)			Examination Scheme and Marks					Credit Scheme				
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral\Pre	Total	Lecture	Practical	Tutorial	
410241	Design and Analysis of Algorithms	03	-	-	30	70	-	-	-	100	3	-	-	3
410242	Machine Learning	03	-	-	30	70	-	-	-	100	3	-	-	3
410243	Blockchain Technology	03	-	-	30	70	-	-	-	100	3	-	-	3
410244	Elective III	03	-	-	30	70	-	-	-	100	3	-	-	3
410245	Elective IV	03	-	-	30	70	-	-	-	100	3	-	-	3
410246	Laboratory Practice III	-	04	-	-	-	50	50	-	100	-	2	-	2
410247	Laboratory Practice IV	-	02	-	-	-	50	-	-	50	-	1	-	1
410248	Project Stage I	-	02	-	-	-	50	-	-	50	-	2	-	2
Total Credit										15	05	-	20	
Total		15	08	-	150	350	150	50	-	700	15	05	-	20
410249	Audit Course 7	Grade												
Elective III						Elective IV								
410244(A) Pervasive Computing 410244(B) Multimedia Techniques 410244(C) Cyber Security and Digital Forensics 410244(D) Object Oriented Modeling and Design 410244(E) Digital Signal Processing						410245(A) Information Retrieval 410245(B) GPU Programming and Architecture 410245(C) Mobile Computing 410245(D) Software Testing and Quality Assurance 410245(E) Compilers								
Laboratory Practice III: Laboratory assignments Courses- 410241, 410242, 410243						Laboratory Practice IV: Laboratory assignments Courses- 410244, 410245								
Audit Course 7(AC7) Options: AC7- I MOOC- Learn New Skills AC7- II Entrepreneurship Development AC7- III Botnet of Things AC7- IV 3D Printing AC7- V Industrial Safety and Environment Consciousness														



Savitribai Phule Pune University Final Year of Computer Engineering (2019 Course) (With effect from Academic Year 2022-23)														
Semester VIII														
Course Code	Course Name	Teaching Scheme (Hours/week)			Examination Scheme and Marks						Credit Scheme			
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Term work	Practical	Oral/Pre	Total	Lecture	Practical	Tutorial	Total
410250	High Performance Computing	03	-	-	30	70	-	-	-	100	03			03
410251	Deep Learning	03	-	-	30	70	-	-	-	100	03			03
410252	Elective V	03	-	-	30	70	-	-	-	100	03			03
410253	Elective VI	03	-	-	30	70	-	-	-	100	03			03
410254	Laboratory Practice V	-	02	-	-	-	50	50	-	100		01		01
410255	Laboratory Practice VI	-	02	-	-	-	50	-	-	50		01		01
410256	Project Stage II	-	06	-	-	-	100	-	50	150		06		06
Total Credit										12	08	-	20	
Total		12	10	-	120	280	200	50	50	700	12	08	-	20
410257	Audit Course 8										Grade			
Elective V					Elective VI									
410252(A) Natural Language Processing 410252(B) Image Processing 410252(C) Software Defined Networks 410252(D) Advanced Digital Signal Processing 410252(E) Open Elective I					410253(A) Pattern Recognition 410253(B) Soft Computing 410253(C) Business Intelligence 410253(D) Quantum Computing 410253(E) Open Elective II									
Lab Practice V: Laboratory assignments Courses- 410250, 410251					Lab Practice VI: Laboratory assignments Courses- 410252, 410253									
Audit Course 8(AC8) Options: AC8- I Usability Engineering AC8- II Conversational Interfaces AC8- III Social Media and Analytics AC8- IV MOOC- Learn New Skills AC8- V Emotional Intelligence														

Savitribai Phule Pune University, Pune
B.E. (Electronics & Telecommunication) 2019 Course
(With effect from Academic Year 2022-23)

Semester-VII

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit				
		Theory	Practical	Tutorial	In-Sem	End-Sem	TW	PR	OR	Total	TH	PR	TUT	Total
404181	Radiation & Microwave Theory	03	-	-	30	70	-	-	-	100	03	-	-	03
404182	VLSI Design and Technology	03	-	-	30	70	-	-	-	100	03	-	-	03
404183	Cloud Computing	03	-	-	30	70	-	-	-	100	03	-	-	03
404184	Elective - 3	03	-	-	30	70	-	-	-	100	03	-	-	03
404185	Elective - 4	03	-	-	30	70	-	-	-	100	03	-	-	03
404186	Lab Practice - 1 (RMT & Cloud Computing)	-	04	-	-	-	25	-	50	75	-	02	-	02
404187	Lab Practice - 2 (VLSI Design & Elective -3)	-	04	-	-	-	25	50	-	75	-	02	-	02
404188	Project Stage - I	-	02	-	-	-	50	-	-	50	-	01	-	01
404189	Mandatory Audit Course 7	-	-	-	-	-	-	-	-	-	-	-	-	-
		Total	15	10	-	150	350	100	50	50	700	-	-	-
Total Credits										15	05	-	20	

Elective - 3	Elective - 4
1. Speech Processing	1. Data Mining
2. PLC SCADA & Automation	2. Electronic Product Development
3. JAVA Script	3. Deep Learning
4. Embedded & RTOS	4. Low Power CMOS
5. Modernized IoT	5. Smart Antennas

Mandatory Audit Course - 7
1. Management Information System
2. Patent Search & Analysis
3. Knowledge Management
4. Energy Economics & Policy
5. Educational Leadership
6. Human Resource Development

Savitribai Phule Pune University, Pune
B.E. (Electronics & Telecommunication) 2019 Course
(With effect from Academic Year 2022-23)

Semester-VIII

Course Code	Course Name	Teaching Scheme (Hours/Week)			Examination Scheme and Marks					Credit			
		Theory	Practical	Tutorial	In-Sem	End-Sem	TW	PR	OR	Total	TH	PR	TUT
404190	Fiber Optic Communication	03	-	-	30	70	-	-	-	100	03	-	-
404191	Elective - 5	03	-	-	30	70	-	-	-	100	03	-	-
404192	Elective - 6	03	-	-	30	70	-	-	-	100	03	-	-
404193	Innovation & Entrepreneurship	-	-	02	-	-	50	-	-	50	-	-	02
404194	Digital Business Management	-	-	02	-	-	50	-	-	50	-	-	02
404195	Fiber Optic Lab	-	02	-	-	-	25	-	50	75	-	01	-
404196	Lab Practice - 3 (Elective - 5)	-	02	-	-	-	25	50	-	75	-	01	-
404197	Project Stage - II	-	10	-	-	-	100	-	50	150	-	05	-
Total		09	14	04	90	210	250	50	100	700	-	-	-
Total Credits										09	07	04	20

Elective - 5		Elective - 6	
1. Biomedical Signal Processing		1. System on Chip	
2. Industrial Drives & Automation		2. Nano Electronics	
3. Android Development		3. Remote Sensing	
4. Embedded System Design		4. Digital Marketing	
5. Mobile Computing		5. Open Elective	

Savitribai Phule Pune University Final Year of Information Technology (2019 Course) (With effect from Academic Year 2022-23)																						
Semester VII																						
Course Code	Course Name	Teaching Scheme(Hours/week)			Examination Scheme and Marks					Credit Scheme												
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Termwork	Practical	Oral	Total	Lecture	Practical	Tutorial	Total								
414441	Information and Storage Retrieval	03	-	-	30	70	-	-	-	100	3	-	-	3								
414442	Software Project Management	03	-	-	30	70	-	-	-	100	3	-	-	3								
414443	Deep Learning	03	-	-	30	70	-	-	-	100	3	-	-	3								
414444	Elective III	03	-	-	30	70	-	-	-	100	3	-	-	3								
414445	Elective IV	03	-	-	30	70	-	-	-	100	3	-	-	3								
414446	Lab Practice III	-	04	-	-	-	25	-	25	50	-	2	-	2								
414447	Lab Practice IV	-	02	-	-	-	25	25	-	50	-	1	-	1								
414448	Project Stage-I	-	-	02	-	-	50	-	-	50	-	-	2	2								
414449	Audit Course7																					
											Total Credit	15	03	02	20							
		Total	15	06	02	150	350	100	25	25	650	15	03	02	20							
Elective III:							Elective IV:															
<ul style="list-style-type: none"> Mobile Computing High Performance Computing Multimedia Technology Smart Computing 							<ul style="list-style-type: none"> Bioinformatics Introduction to DevOps Computer Vision Wireless Communications 															
Lab Practice-III:							Lab Practice-IV:															
It is based on subjects:							It is based on subjects:															
<ul style="list-style-type: none"> Information and Storage Retrieval 							<ul style="list-style-type: none"> Deep Learning 															
Audit Courses 7:																						
<ul style="list-style-type: none"> 414449A: Copyrights and Patents 414449B: Stress Management by Yoga 414449C: English for Research Paper Writing 																						

Savitribai Phule Pune University Final Year of Information Technology (2019Course) (With effect from Academic Year2022-23)																
Semester VIII																
Course Code	Course Name	Teaching Scheme (Hours/week)			Examination Scheme and Marks						Credit Scheme					
		Lecture	Practical	Tutorial	Mid-Sem	End-Sem	Teamwor	Practical	Oral	Total	Lecture	Practical	Tutorial	Total		
414450	Distributed Systems	03	-	-	30	70	-	-	-	100	03				03	
414451	Elective V	03	-	-	30	70	-	-	-	100	03				03	
414452	Elective VI	03	-	-	30	70	-	-	-	100	03				03	
414453	Startup and Entrepreneurship	-	-	03	-	-	50	-	-	50	-	-	03	03		
414454	Lab Practice V	-	04	-	-	-	50	25	-	75		02		02		
414455	Lab Practice VI	-	02	-	-	-	25	-	50	75		01		01		
414456	Project Stage II	-	10	-	-	-	100	-	50	150		05		05		
414457	AuditCourse8															
												Total Credit	09	08	03	20
		Total	09	16	03	90	210	225	50	75	650	09	08	03	20	
Elective V: <ul style="list-style-type: none"> Software Defined Networks Social Computing Natural Language Processing Soft Computing Game Engineering 								Elective VI: <ul style="list-style-type: none"> Ethical Hacking and Security Augmented and Virtual Reality Business Analytics and Intelligence Blockchain Technology 								
Lab Practice V: It is based on subjects: <ul style="list-style-type: none"> Distributed Systems 								Lab Practice VI: It is based on subjects: <ul style="list-style-type: none"> Elective VI 								
Audit Courses 8: <ul style="list-style-type: none"> 414457A: Functional Programming in Haskell 414457B: Cyber Laws and Use of Social Media 414457C: Constitution of India 																

Savitribai Phule Pune University
Board of Studies - Mechanical and Automobile Engineering
Undergraduate Program – Final Year Mechanical Engineering (2019 pattern)

Course Code	Course Name	Teaching Scheme (Hrs./week)			Examination Scheme and Marks					Credit				
		TH	PR	TUT	ISE	ESE	TW	PR	OR	TOTAL	TH	PR	TUT	TOTAL
Semester-VII														
402041	Heating Ventilation Air-Conditioning and Refrigeration	3	2	-	30	70	-	-	25	125	3	1	-	4
402042	Dynamics of Machinery	3	2	-	30	70	-	-	25	125	3	1	-	4
402043	Turbomachinery	2	2	-	-	50	25	-	25	100	2	1	-	3
402044	Elective – III	3	-	-	30	70	-	-	-	100	3	-	-	3
402045	Elective - IV	3	-	-	30	70	-	-	-	100	3	-	-	3
402046	Data Analytics Laboratory	-	2	-	-	-	50	-	-	50	-	1	-	1
402047	Project (Stage - I)	-	4	-	-	-	50	-	50	100	-	2	-	2
	Total	14	12		120	330	125	-	125	700	14	6	-	20
Semester-VIII														
402048	Computer Integrated Manufacturing	3	2	-	30	70	25	-	25	150	3	1	-	4
402049	Energy Engineering	3	2	-	30	70	25	-	25	150	3	1	-	4
402050	Elective - V	3	-	-	30	70	-	-	-	100	3	-	-	3
402051	Elective - VI	3	-	-	30	70	-	-	-	100	3	-	-	3
402052	Mechanical Systems Analysis Laboratory	-	2	-	-	-	25	-	25	50	-	1	-	1
402053	Project (Stage - II)	-	10	-	-	-	100	-	50	150	-	5	-	5
	Total	12	16	-	120	280	175	-	125	700	12	8	-	20
Elective-III		Elective-V												
402044A	Automobile Design	402050A	Quality and Reliability Engineering											
402044B	Design of Heat Transfer Equipments	402050B	Energy Audit and Management											
402044C	Modern Machining Processes	402050C	Manufacturing Systems and Simulation											
402044D	Industrial Engineering	402050D	Engineering Economics and Financial Management											
402044E	Internet of Things	402050E	Organizational Informatics											
402044F	Computational Fluid Dynamics	402050F	Computational Multi Body Dynamics											
Elective-IV		Elective-VI												
402045A	Product Design and Development	402051A	Process Equipment Design											
402045B	Experimental Methods in Thermal Engineering	402051B	Renewable Energy Technologies											
402045C	Additive Manufacturing	402051C	Automation and Robotics											
402045D	Operations Research	402051D	Industrial Psychology and Organizational Behavior											
402045E	Augmented Reality and Virtual Reality	402051E	Electrical and Hybrid Vehicle											

Abbreviations: **TH:** Theory, **PR:** Practical, **TUT:** Tutorial, **ISE:** In-Semester Exam, **ESE:** End-Semester Exam, **TW:** Term Work, **OR:** Oral

- Student can select any elective subjects from the list given as per his/her choice. However, it is advised to select the subjects from within a group identified for specialization.

Instructions:

- Practical/Tutorial must be conducted in **FOUR batches per division** only.
- Minimum number of Experiments/Assignments in PR/Tutorial shall be carried out **as mentioned in the syllabi** of respective courses.
- Assessment of tutorial work has to be carried out similar to term-work. The Grade cum marks for Tutorial and Term-work shall be awarded on the basis of **continuous evaluation**.

PES

Prayatna Engineering Services

Govt. Electrical Contractor

Office : Shop No. L/G 10, 'A' Wing, Jai Ganesh Vision, Akurdi, Pune - 411 035.
Mob.- 9881236756, 020-40031197. E-mail - prayatnaengg@gmail.com / pvkale@rediffmail.com
GST No. 27ARLPK1471H1ZO

Date : 14/05/2022

TO WHOM IT MAY CONCERN

This is to certify that Mr. Dadaso Bhagavanrao Jadhav student of Siddhant College of Engineering has successfully completed a summer internship in the field of Electrical and Electronic.

From 4 April 2022 to 14 May 2022 under guidance of Mr. Pradeep Kale.

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

We wish him every success in his life and career.



For Prayatna Engineering Services.

PES

Prayatna Engineering Services

Govt. Electrical Contractor

Office : Shop No. L/G 10, 'A' Wing, Jai Ganesh Vision, Akurdi, Pune - 411 035.
Mob.- 9881236756, 020-40031197. E-mail - prayatnaengg@gmail.com / pvkale@rediffmail.com
GST No. 27ARLPK1471H1ZO

Date : 14/05/2022

TO WHOM IT MAY CONCERN

This is to certify that Mr. Mangesh Ramesh Mandavkar student of Siddhant College of Engineering has successfully completed a summer internship in the field of Electrical and Electronic.

From 4 April 2022 to 14 May 2022 under guidance of Mr. Pradeep Kale.

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

We wish him every success in his life and career.



For Prayatna Engineering Services.



Infovoices Pvt Ltd.

Rajiv Gandhi Infotech Park, Office No 202 & 209 city Centre Hinjewadi phase 1. E-mail-
Info@infovoices.com

Internship Completion Certificate

Dear Sir/Madam

Ms. Amruta Dilip Dange student of your collage studying in 6th semester in the department **Electronic and Telecommunication** during the year 2021-2022 has completed her internship / training with **Infovoices Pvt Ltd.**

She was working with us from **1 March 2022** to **1 April 2022** with total 4 equivalent weeks of works during her internship tenure. She was working in area of **Lead Development Executive.**

We found her to be very sincere & hard working and also willing to put his best efforts and get in to the depth of the subject to understand it better.

wish all the best for future endeavors.

Date: _____

Place: _____

Stamp & signature of concerned authority.



Info@infovoices.com

Rajiv Gandhi Infotech Park, Office No 202 And
209 City Centre Hinjewadi Phase 1 411057

+91 77448222424, +91 9666856191

www.infovoices.com

Ref: EF/IIR/EF148/006

16 May 2022

TO WHOM IT MAY CONCERN

Dear Sir /Madam,

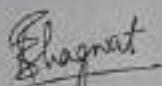
Ms. Ujwala Revansiddh Ghotale student of Siddhant College of Engineering, Sadumbare studying in VIIth semester in the Department of Electronics and Telecommunication during the year 2021-2022 has completed her internship with Ecofrost Technologies Pvt. Ltd.

She was working with us from 1st April 2022 to 15th May 2022 with total 6 equivalent weeks of work during her internship tenure. She was working in the area of Electronics production.

We found her to be very sincere and wish you all the best in your future endeavors.

For and on behalf of

Ecofrost Technologies Pvt Ltd.



Radhika Bhagwat

HR Head



Suvarna Enterprises

"A" class Govt Licenced Electrical Contractor.

Address : 328 A/2, Shalini Palace, Flat No. 202, Behind Congress Bhavan, Near Rokdoba Mandir, Shivaji Nagar, Pune - 411 005.
Email ID : suvarna_enterprises@yahoo.in / suvarna.enterprise@gmail.com GST No. 27AFTP1889G1Z3

Ref. No. SE/SCOE/C16

Date :- 5 MAY 2022

CERTIFICATE OF INTERNSHIP
TO WHOM IT MAY CONCERN

Dear Sir/Madam,

This is to certify that Mr. Kedar Rameshkumar Khatri student of Electronics & Telecommunication branch in Siddhant College of Engineering & studying in 6th semester during the year 2022-2023, has done his internship in Power System & Solutions at Suvarna Enterprises from 21st of March 2022 to 4th of May 2022.

He has successfully completed his internship program during his tenure he was largely instrumental in undertaking the onsite projects like **UPS-Inverter & DG set installation & commissioning**.

During his internship, he has well demonstrated his self-motivation abilities to learn new skills. His performance exceeded our expectations.

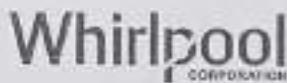
We wish him all the best for his upcoming career & future endeavors.

Date: 5th May 2022

Place: Prince

Suvarna Enterprises
Santosh Mahajan
Director





WHIRLPOOL OF INDIA LIMITED, FACTORY & REGISTERED OFFICE : A-4, MIDC, RANJANGAON, TAL. SHIRUR,
DIST. PUNE - 412 220, MAHARASHTRA, INDIA. TEL : +91-2138-660100, FAX : +91-2138-232376 / 232229
CIN : U29191PN2004PLC020063

Internship Completion Certificate

Dear Sir/Madam,

Ms. Ashwini Ashok Shewale, a student of your collage studying in 6th semester in the department of **Electronics and Telecommunication** during the year 2021-2022 has completed her internship/training with **Whirlpool Of India Ltd.**

She was working with us from **1 March 2022 to 1 April 2022** with 4 total equivalent weeks of works during her internship tenure. She was working in area of **Lead Development Executive**.

We found her to be very sincere & hardworking and also willing to put her best efforts and get it into depth of the subject to understand it better.

Wish all the best for future endeavors.

Date 23/05/2022

Place Sudumbha

Stamp & sign of concerned authority



Whirlpool of India Ltd.
Plot No. A-4, MIDC,
Ranjangaon, Tal. Shirur,
Pune 419 204
+91 2138-660

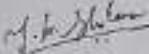
Certificate

OF COMPLETION

THIS CERTIFICATE IS AWARDED TO

Kunal Rajaram Kachare

For completing 45 days internship with Yogtech Automation
Foundation from December 2021 to 25th January 2022
on the position of PLC programming developer



President, NIR

Issued On: 25/1/2022



Certificate UID: MF/IAH/006



PVG Automotive Pvt. Ltd.

Corp. Office : Anand Nivas, Office No.2, Near Bank Of Maharashtra, Chaphekar Chowk, Chinchwad, Pune-411030.

IAF 16949

Factory Address : Plot No.-39+3, Part-13,D1 Block, Akurdi Industrial Estate,

MDC Chinchwad, Pune-411019, Maharashtra, India.

Email : charms@pvgautomotive.com

Website : www.pvgautomotive.com

Date: 21.05.22

TO WHOM IT MAY CONCERN

Dear Sir /Madam,

Ms. Purush Pandurang Sirase student of Siddhant College of Engineering, Sadunbare

studying in VIth semester in the Department of Electronics and Telecommunication during the year 2021-2022 has completed her internship with PVG Automotive Pvt Ltd.

She was working with us from 9th March 2022 to 22nd April 2022 with total 6 equivalent weeks of work during her internship tenure. She was working in the area of Electronics Sensors, Battery Cable and Wiring harness.

We found her to be very sincere and wish you all the best in your future endeavors.

For,

PVG Automotive Pvt Ltd.

Mr. Dhagronaj Gaikwad
Managing Director.





TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Mr. Amol K. Kale student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2021-2022 has completed his internship with ADVISTA Technosolutions Pvt. Ltd.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Project engineer.

We found him to be very sincere and wish all the best for future endeavours.

Date: 16th May 2022

Place: Pune

Stamp & Signature of concerned Authority





TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Mr. Kuldeep S. Khaladkar student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2021-2022 has completed his Internship with ADVISTA Technosolutions Pvt. Ltd.

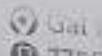
He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Project engineer.

We found him to be very sincere and wish all the best for future endeavours.

Date: 16th May 2022

Place: Pune

Stamp & Signature of concerned Authority



Q31, no. 127, G-302, Gidc, Dehu Road,



TO WHOM IT MAY CONCERN

Dear Sir/Madam,

Mr. Harshal V. Kumawat student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2021-2022 has completed his internship with ADVISTA Technosolutions Pvt. Ltd.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Project engineer.

We found him to be very sincere and wish all the best for future endeavours.

Date: 16th May 2022

Place: Pune

Stamp & Signature of concerned Authority





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Satyakal Complex, Gadiyal, Hadapsar, Pune 411042.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vaishno Devi Mandir,
Sector 1, Indrayanagar, Bhosari, Pune 411039.
Mob. No. : 9339380909 Email : solutions@kpower@gmail.com

DEAL IN ALL TYPE OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

**SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS**

Ref. KKPS/SCOE/22-23/IC09

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Ms. Vaibhavshali Rajendra Kamble student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed her internship with K. K. Power Solutions.

She was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during her Internship tenure. She was working in the area of Design Engineer.

We found her to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
Kedar R. Khatri
Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Soyalk Complex, Godifal, Hadapsar, Pune 411034.
Branch Off. : Shop No. 22, Shubh Complex, Befind Vashnodevi Mandir,
Sector 1, Indrayanagar, Bhosari, Pune 411034.
Mob. No. : 9339330109 Email : solution@kpower@gmail.com

MANUFACTURER / ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC10

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Ms. Kalyani Anil Bhujbal student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed her internship with K. K. Power Solutions.

She was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during her internship tenure. She was working in the area of Design Engineer.

We found her to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
Kedar R. Khatri
Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Satylok Complex, Godhal, Hadapsar, Pune 411038.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vishnudev Mandir,
Sector 1, Indrayanagar, Bhosari, Pune 411038.
Mob. No. : 9337330909 Email : salutarmkpower@gmail.com.

DEAL IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC01

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Abhijeet Vijay Dawane student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of After Sales Maintenance Engineer.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

() K K Power Solutions
Kedar R. Khatri
Director



**K. K. POWER SOLUTIONS**

Head Off. : Shop No.2, Schykk Complex, Gadiet, Hadapsar, Pune 411050.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vaishnodevi Mandir,
Sector 1, Indrayanagar, Bhati, Pune 411039.
Mob No. : 9339330909 Email : solutions@kpower@gmail.com

DEALING IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL, & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC14

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Vishal Baban Misal student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his Internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his Internship tenure. He was working in the area of After Sales Maintenance Engineer.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

K K Power Solutions
Kedar R. Khatri
Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Salyak Complex, Godavari Hadapsar, Pune 411034
 Branch Off. : Shop No. 22, Shubh Complex, Borivali Valsadivli Mandi, Sector 1, Indrayanagar, Bhosari, Pune 411034
 Mob. No. : 9339330909 Email : solutions@kpower.com

DEALS IN : ALL TYPES OF ELECTRICAL, ELECTRONIC, SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES, CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC02

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Pramod Ganpatrao Dhonekshe student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Site Engineer for UPS Installation.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
 Kedar R. Khatri
 Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Savlat Complex, Godtal, Hadapsar, Pune 411038.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vithnadevi Mandir,
Sector 1, Indrayanagar, Bhosari, Pune 411038.
Mob. No. : 9339300909 Email: solutionskkpower@gmail.com

DEAL IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC03

Date : 15 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Dattaram Kalyan Kale student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of After Sales Maintenance Engineer.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

() K K Power Solutions

Kedar R. Khatri

Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Shylok Complex, Gadhali, Hadapsar, Pune 411034.
Branch Off. : Shop No. 22, Shubh Complex, Behind Veerbhavdevi Mandir,
Sector 1, Indiyanagar, Bhor, Pune 411034.
Mob. No. : 9337330909 Email : solution@kipower@gmail.com

DEALING IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC11

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Ms. Nisha Prabhakar Khare student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed her internship with K. K. Power Solutions.

She was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during her internship tenure. She was working in the area of Design Engineer.

We found her to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions

Kedar R. Khatri

Director





K. K. POWER SOLUTIONS

Head Off. : Shop No. 2, Satylok Complex, Gadilal, Hadapsar, Pune 411 028,
Branch Off. : Shop No. 22, Shubh Complex, Behind Vithalnadevi Mandir,
Sector 1, Indrayanagar, Bhiwandi, Pune 410 509.
Mob. No. : 9339330909 Email : solutionskkpower@gmail.com

DEAL IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC07

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Prashant Balasaheb Kadam student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Site Engineer for Industrial Electrification.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
Kedar R. Khatri
Director



**K. K. POWER SOLUTIONS**

Head Off. : Shop No. 2, Solyak Complex, Godhal, Hadapsar, Pune 411050.
 Branch Off. : Shop No. 22, Shubh Complex, Behind Vaishnodevi Mandir,
 Sector 1, Indrayankhagar, Bhosari, Pune 411039,
 Mob No. : 9339330909 Email : solutionkkpower@gmail.com

DEAL IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
 SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
 CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC08

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Salunkhe Akshay Maruti student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Site Engineer for Industrial Electrification.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

K K Power Solutions
 Kedar R. Khatri
 Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Suryek Complex, Gaichal, Hadapsar, Pune 411032.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vaishnodevi Mandir,
Sector 1, Indrayanagar, Bhosari, Pune 411032.
Mob. No. : 933930909 Email : solutionkkpower@gmail.com

DEALING IN ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

**SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS**

Ref. KKPS/SCOE/22-23/IC12

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Atul Raghunath Gade student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Site Engineer for UPS Installation.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

K K Power Solutions

Kedar R. Khatri

Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Satylok Complex, Godta, Hadapsar, Pune 411032.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vashnadevi Mandir,
Sector 1, Indrapuramnagar, Bhusar, Pune 411032.
Mob.No. : 9339330909 Email : solutionskkpower@gmail.com

DEALER IN : ALL TYPES OF ELECTRICAL, ELECTRONIC,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

**SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS**

Ref. KKPS/SCOE/22-23/IC04

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Dhananjay Indrajit Khanvilkar student of **Siddhant College of Engineering** studying in **6th** semester in the department of **Electronics & Telecommunication** during the year **2022-2023** has completed his internship with **K. K. Power Solutions.**

He was working with us from **1st of April 2022** to **15th of May 2022** with total **6** equivalent weeks of work during his internship tenure. He was working in the area of **Site Engineer for UPS Installation.**

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

K K Power Solutions

Kedar R. Khatri

Director





ANIHA ENTERPRISES

Authorized Electrical Contractor and Suppliers in Electrical & Electronics Materials.
Shop No.-19, Balaji Tower, Mahatma Phule Chowk, Chakan.410501
Contact No- 9922512526, Email ID- anihaenterprises@gmail.com
GSTIN No.-27BGSPK0915R12N, PAN No.- BGSPK0915R

This is to certify that Mr. Mungase Suraj Sanjay student of Electronics & telecommunication at Siddhant Collage Of Engineering, Sudumbre. Having id/PRN no:- 72029377E, Has successfully completed the internship programme from 15 March 2022 to 30 April 2022. in our organization Aniha Enterprises.

Date: 1 MAY 2022

Location: Chakan, Pune.

For Aniha Enterprises

For Aniha Enterprises

Sushil Pawar
Proprietor

Authorised Signature

HANS SALES

1103, B WING KOLSUS GREEN CITY
NEAR RIVER RESIDENCY, CHIKHALI PUNE 411062
GST: 27DDNPP8383M1ZA

TO WHOM IT MAY CONCERN

Dear Sir/madam

Mr. Sameer D. Shinde student of **Siddhant College of Engineering** studying in 6th semester in department of Electronics & Telecommunication during the year 2021-2022 has completed internship with Hans Sales

He was working with us from 1st April 2022 to 15th May 2022 with total 6 equivalent weeks of working during the internship tenure. He was working in area of design engineer.

We found him to be very sincere and wish all the best for future endeavors.



HANS SALES

Chandra Pandey
Owner

HANS SALES

1102, B WING KOLOGUS GREEN CITY
NEAR RIVER RESIDENCY, CHIKHALI PUNE 411062
GST: 27DDWPP6163M12A

TO WHOM IT MAY CONCERN

Dear Sir/madam

Mr. Vijay Dubey student of Siddhant Engineering College studying in 6th semester in department of Electronics & telecommunication during the year 2022-2023 has completed internship with Hans Sales

He was working with us from 1st April 2022 to 15th May 2022 with total 6 equivalent weeks of working during the internship tenure. He was working in area of design engineer.

We found him to be very sincere and wish all the best for future endeavors.



HANS SALES

Chandra Pandey
Owner



BHAIRAVNATH ENGINEERING

All Types Engineering Job Works Machining Production and Tool Room

S. No. 440, Alandi Phata, Gavte Vasti, Medankarwadi, Chakan, Pune- 410501.

Mo. 9763584948, 9604704263

Ref.

Date : 01/05/2022

CERTIFICATE OF INTERNSHIP

This is certify that Mr. Aditya Angad Mohite student of Electronics & telecommunication at siddhant collage of engineering,sudumbre. Having ID no is- 72165842D has successfully completed the internship programme from 15 march 2022 to 30 april 2022. In our organization Bhairavnath engineering. at chakan,pune.

Date:-05/05/2022.

Place:-Chakan,pune.



Signature of authority



Bagade Creation

CREATION
SCIENCE & TECHNOLOGY

Vikas Housing Society, Main Road,
Rupeenagar, Tal. Haveli, Pune - 412114. Mob. : 9921168781

Ref. No.: 0009/May/2022

Date.: 6 May 2022

WHOM IT MAY CONCERN

This is to certify that **MR. Swapnil Prabhakar Dimble** Student of Siddhant collage of Engineering has successfully completed a summer internship in the field of **Electrical & Electronics**.

From 7 March 2022 to 6 May 2022 under Guidance of **Mr. Prashant Bagade**

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



We wish him every success in his life & professional carrier.

For Bagade Creation


Proprietor

For Bagade Creation



BAGADE CREATION
Wax Housing Society, Main Road,
Rupenagar, Tal. Haveli, Pune - 412 114. Mob.: 9921168781

Ref. No.: 0008/May 2022

Date.: 6 May 2022

TO WHOM IT MAY CONCERN

This is to certify that **Mr. Dhansing Haridas Gade** Student of Siddhant collage of Engineering has successfully completed a summer internship in the field of **Electrical & Electronics**.

From 7 March 2022 to 6 May 2022 under Guidance of **Mr. Prashant Bagade**

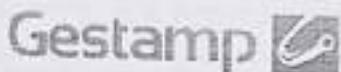
During the period of his internship program with us, he had been exposed to different processes and was found diligent, Hardworking & inquisitive.



We wish him every success in him life & professional carrier.

For Bagade Creation

For Bagade Creation



GESTAMP AUTOMOTIVE INDIA PVT LTD

E1 (Part), Chakan MIDC Road, Phase-III, Kharabwadi, Chakan,
Chakan Talegaon Highway, Mahalunge Ingale, Maharashtra 410501.

Date: 10/05/2022

TO WHOM SO EVER CONCERN

This is to Certify that *Ms. Shreya Anand Adekar*, D/O - Mr. Anand Punjaram Adekar, a student of *Siddhant College of Engineering* studying in 6th semester in the *Department of Electronics and Telecommunication* during the year 2022-2023. She was working with us as Quality Engineer. She has successfully completed 03 (Three) months internship programme from *01 Feb 2022 to 30 Apr 2022*. During the period of his internship programme with us she was found punctual, hardworking and inquisitive.

We wish her best wishes in her future assignment.

For, Gestamp Automotive India Pvt Ltd.

Authorized Signatory

Date: 10th May, 2022

Place: Pune



K. K. POWER SOLUTIONS

Head Off.: Shop No.2, Satylok Complex, Godiyal, Hadapsar, Pune 28.
Branch Off.: Shop No. 22, Shubh Complex, Behind Vakhnadevi Mandir,
Sector 1, Indiranagar, Bhosari, Pune 39.
Mob.No.: 9339332707 Email: solutionskkpower@gmail.com

DEALS IN : ALL TYPES OF ELECTRICAL, ELECTRONIC,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC15

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Ms. Pratiksha Rangnath Kumbhar student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed her internship with K. K. Power Solutions.

She was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during her internship tenure. She was working in the area of Site Engineer for UPS Installation.

We found her to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
Kedar R. Khatri
Director



K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Satylok Complex, Godlal, Hadapsar, Pune 411032.
Branch Off. : Shop No. 22, Shubh Complex, Behind Valsadnadevi Mandir,
Sector 1, Indrayanagar, Bhosari, Pune 411032.
Mob.No. : 937330909 Email : solutionskkpower@gmail.com

DEALS IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

**SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS**

Ref. KKPS/SCOE/22-23/IC13

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Pranjal Kashinath Dhengale student of Siddhant College of Engineering studying in 6th semester in the department of Electronics & Telecommunication during the year 2022-2023 has completed his internship with K. K. Power Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6 equivalent weeks of work during his internship tenure. He was working in the area of Marketing.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
Kedar R. Khatri
Director





K. K. POWER SOLUTIONS

Head Off. : Shop No. 2, Satylok Complex, Godrej, Hadapsar, Pune 411042.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vaishnodevi Mandir,
Sector 1, Indrayanagar, Bhosari, Pune 411042.
Mob. No. : 9337330909 Email : solutions@kpower@gmail.com

DEALS IN : ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS

Ref. KKPS/SCOE/22-23/IC05

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Amit Ramchandra Kokare student of Siddhant College of Engineering,
studying in 6th semester in the department of Electronics & Telecommunication
during the year 2022-2023 has completed his internship with K. K. Power
Solutions.

He was working with us from 1st of April 2022 to 15th of May 2022 with total 6
equivalent weeks of work during his internship tenure. He was working in the
area of Marketing.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
Kedar R. Khatri
Director





K. K. POWER SOLUTIONS

Head Off. : Shop No.2, Satylok Complex, Gadilal Hadapwar, Pune 26.
Branch Off. : Shop No. 22, Shubh Complex, Behind Vashnadevi Mandir,
Sector 1, Indrayanikagar, Bhosari, Pune 39.
Mob.No. : 9339330797 Email : solutionskkpower@gmail.com

DEALS IN ALL TYPES OF ELECTRICAL, ELECTRONICS,
SOLAR, MEDICAL & REFRIGERATION EQUIPMENT

**SALES & SERVICES : INVERTORS, UPS, BATTERIES,
CCTV'S, ASSEMBLED COMPUTERS & PERIPHERALS**

Ref. : KKPS/SCOE/22-23/IC06

Date : 16 MAY 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam

Mr. Kamlesh Shivkaran Chowdhary student of **Siddhant College of Engineering** studying in **6th** semester in the department of **Electronics & Telecommunication** during the year **2022-2023** has completed his internship with **K. K. Power Solutions.**

He was working with us from **1st of April 2022** to **15th of May 2022** with total **6** equivalent weeks of work during his internship tenure. He was working in the area of **Marketing**.

We found him to be very sincere and wish all the best for future endeavors.

Date: 16th May 2022

Place: Pune

KK Power Solutions
Kedar R. Khatri
Director





SHINHO PRECISION INDIA PVT LTD

Ganesh Nagar, Sahyog Nagar, Pimpri-Chinchwad, Maharashtra 411052

Internship Completion Certificate

Dear Sir/Ma'am

○ Ms. Kranti Netaji Birajdar student of your college studying in 6th Semester in the department **Electronic and Telecommunication** during the year 2021-2022 has completed her internship / training with **Shinho Precision India Pvt Ltd.**

She was working with from **1 March 2022 to 1 April 2022** with total 4 equivalent weeks of works during her internship tenure. She was working in area of **Lead Development Executive**.

We found her to be very sincere & hard working and also willing to put his best efforts and get in to depth of the subject to understand it better. Wish all the best for the future endeavors.

○ Date: **20th April 2022**
Place: - **Pune**

Authorized Signature
Shinho Precision India Pvt Ltd.



SHINHO PRECISION INDIA PVT LTD

Ganesh Nagar, Sahyog Nagar, Pimpri-Chinchwad, Maharashtra 411062

Internship Completion Certificate

Dear Sir/Ma'am

Ms. Sneha Rajaram Birajdar student of your college studying in 6th Semester in the department Electronic and Telecommunication during the year 2021-2022 has completed her Internship / training with Shinho Precision India Pvt Ltd.

She was working with from 1 March 2022 to 1 April 2022 with total 4 equivalent weeks of works during her internship tenure. She was working in area of Lead Development Executive.

We found her to be very sincere & hard working and also willing to put his best efforts and get in to depth of the subject to understand it better. Wish all the best for the future endeavors.

Date: 20th April 2022

Place: - Pune

Authorized Signature

Shinho Precision India Pvt Ltd.



SHINHO PRECISION INDIA PVT LTD

Ganesh Nagar, Sahyog Nagar, Pimpri-Chinchwad, Maharashtra 411062

Internship Completion Certificate

Dear Sir/Ma'am

Mr. Saurabh Rajaram Birajdar student of your college studying in 6th Semester in the department Electronic and Telecommunication during the year 2021-2022 has completed their internship / training with Shinho Precision India Pvt Ltd.

He was working with from 1 March 2022 to 1 April 2022 with total 4 equivalent weeks of works during their internship tenure. He was working in area of Lead Development Executive.

We found their to be very sincere & hard working and also willing to put his best efforts and get in to depth of the subject to understand it better. Wish all the best for the future endeavors.

Date: 20th April 2022

Place: - Pune



Authorized Signature

Shinho Precision India Pvt Ltd.

CAYMET's
Siddhant College of Engineering
Department of mechanical Engineering

NOTICE

Date: 25 August 2021

All the students of B. E. Mechanical Engineering are here by informed that, to initiate the activity of project, student should start the following activities.

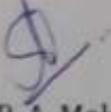
- Form the group for the project. [Group of 4 students per project]
- Select the title for project - Three Titles for the project should be available with each group.
- The choice for project Guide.

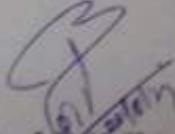
Students shall have to complete the above requirements for Project activity till Monday, 30th August 2021.

Students can submit the above details by filling the following link...

https://docs.google.com/spreadsheets/d/1vMIX89_MjqcpFLRsQ-Yj3WMOfqOSQxUUDK4Ty-rem-E/edit#gid=0


Prof. S. U. Deshpande
Project Coordinator.
25/Aug/2021.


Dr. P. A. Makasare
HoD


Prof. D. V. Shinde
Principal

CAYMET's
Siddhant College of Engineering
Department of mechanical Engineering

Schedule of BE Project A.Y. 2021-22

Project Stage 1 (Semester . . ,		
Activity	Time Slot	Action Plan
Fixing of Project Title	30 th August 2021.	Project Title should be Finalised.
Guide Allocation.	7 th September 2021.	Allocation of Guide to Project Group.
First Presentation.	13 th September 2021.	Presentation on Literature Review, Methodology, Gang Chart.
Second Presentation.	8 th October 2021.	Presentation on Design Calculations of project Components, CAD drawing and simulation of project, if required.
Final Presentation.	15 th October 2021.	Final Presertation for stage 1 and Report preparation.
Project Stage 2(Semester VIH)		
First Presentation.	7 th January 2022.	Beginning of Fabrication of Project.
Second Presentation.	11 th February 2022.	Final assembled Project and trial of the project to record the readings. Analysis of trial.
Final Presentation.	11th March 2022.	Preparation of Final Black book of project.

Students shall maintain a Project Diary of work progress duly signed by Project Guide.

Students shall follow the time line allotted for each activity.

Prof. S. U. Deshpande
Project Coordinator.

25/Aug./21.

Dr. P. A. Makasare
HoD

Savitribai Phule Pune University
Final Year of Mechanical Engineering (2015 Course)

Course Code : 402046

Course Name : Project – I

Teaching Scheme:		Credits		Examination Scheme:			
Theory	:-	TH	:-	Theory	In-Sem	:-	PR :-
Practical	: 04 hrs per week	TW	: 02		End-Sem	:-	OR : 25
							TW : 25

Course Objectives:

- To have ideology of the industrial project.
- Hands on working with tools, tackles and machines
- To carry out literature survey
- To do brain storming for mechanical engineering system

Course Outcomes:

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

- Find out the gap between existing mechanical systems and develop new creative new mechanical system.
- Learn about the literature review
- Get the experience to handle various tools, tackles and machines.

Course Contents

INSTRUCTIONS FOR PROJECT REPORT WRITING (Project Stage I)

It is important that the procedures listed below be carefully followed by all the students of B.E. (Mechanical Engineering).

1. Prepare *Three Spiral Bound Copies* of your manuscript.
2. Limit your Project Stage I to 25– 30 pages (preferably)
3. The *footer must include* the following:

Institute Name, B.E. (Mechanical) Times New Roman 10 pt. and centrally aligned.

4. Page number as second line of footer, Times New Roman 10 pt. centrally aligned.
5. Print the manuscript using
 - a) Letter quality computer printing.
 - b) The main part of manuscript should be Times New Roman 12 pt. with alignment - justified.
 - c) Use 1.5 line spacing.
 - d) Entire report shall be of 5- 7 chapters
6. Use the paper size 8.5" × 11" or A4 (210 × 197 mm). Please follow the margins given below.

Margin Location	Paper 8.5" × 11"	Paper A4 (210 × 197 mm)
Top	1"	25.4 mm
Left	1.5"	37 mm
Bottom	1.25"	32 mm
Right	1"	25.4 mm

7. All paragraphs will be *1.5 lines spaced with a one blank line between each paragraph*. Each paragraph will begin with *without any indentation*.
8. *Section titles* should be bold with *14 pt.* typed in all capital letters and should be left aligned.
9. *Sub-Section headings* should be aligning at the left with *12 pt.* bold and Title Case (the first letter of each word is to be capitalized).
10. Illustrations (charts, drawings, photographs, figures) are to be in the text. Use only illustrations really pertinent to the text. Illustrations must be sharp, clear, black and white. Illustrations downloaded from internet are not acceptable.
 - a) Illustrations should not be more than two per page. One could be ideal
 - b) Figure No. and Title at bottom with *12 pt.*
 - c) Table No. and Title at top with *12 pt.*
 - d) Legends below the title in *10 pt.*
 - e) Leave proper margin in all sides
 - f) Illustrations as far as possible should not be photo copied.
11. Photographs if any should be of glossy prints
12. Please use SI system of units only.
13. Please number the pages on the front side, centrally below the footer
14. References should be either in order as they appear in the thesis or in alphabetical order by last name of first author
15. Symbols and notations if any should be included in nomenclature section only
16. Following will be the order of report
 - i. Cover page and Front page (*as per the specimen on separate sheet*)
 - ii. Certificate from the Institute (*as per the specimen on separate sheet*)
 - iii. Acknowledgements
 - iv. Contents
 - v. List of Figures
 - vi. List of Tables
 - vii. Nomenclature
 - viii. Abstract (A brief abstract of the report not more than 150 words. The heading of abstract i.e. word "Abstract" should be bold, Times New Roman, 12 pt. and should be typed at the center. The contents of abstract should be typed on new line without space between heading and contents. Try to include one or two sentences each on motive, method, key-results and conclusions in Abstract)
1. Introduction (2-3 pages) (TNR – 14 Bold)
 - 1.1 Problem statement (TNR – 12)
 - 1.2 Objectives
 - 1.3 Scope
 - 1.4 Methodology
 - 1.5 Organization of Dissertation
2. Literature Review (12-16 pages)
Discuss the work done so far by researchers in the domain area and their significant conclusions. No derivations, figures, tables, graphs are expected.
3. This chapter shall be based on your own simulation work (Analytical/ Numerical/FEM/CFD) (8 - 12 pages)
4. Experimental Validation - This chapter shall be based on your own experimental work

(2 - 3 pages)

5. Concluding Remarks and Scope for the Future Work (1 - 2 pages)

(*IF above Chapters 3, 4, 5 not completed please mention the plan for the same and time period for completion and detail activity chart*).

References ANNEXURE (if any) (Put all mathematical derivations, Simulation program as Annexure)

17. All section headings and subheadings should be numbered. For sections use numbers 1, 2, 3, and for subheadings 1.1, 1.2, etc and section subheadings 2.1.1, 2.1.2, etc.

18. References should be given in the body of the text and well spread. No verbatim copy or excessive text from only one or two references. If figures and tables are taken from any reference then indicate source / citation of it. Please follow the following procedure for references

Reference Books :

Collier, G. J. and Thome, J. R., Convective boiling and condensation, 3rd ed., Oxford University Press, UK, 1996, pp. 110 – 112.

Papers from Journal or Transactions :

Jung, D. S. and Radermacher, R., Transport properties and surface tension of pure and mixed refrigerants, *ASHRAE Trans*, 1991, 97 (1), pp. 90 – 98.

Bansal, P. K., Rupasinghe, A. S. and Jain, A. S., An empirical correction for sizing capillary tubes, *Int. Journal of Refrigeration*, 1996, 19 (8), pp. 497 – 505.

Papers from Conference Proceedings :

Colbourne, D. and Ritter, T. J., *Quantitative assessment of flammable refrigerants in room air conditioners*, Proc. of the Sixteenth International Compressor Engineering Conference and Ninth International Refrigeration and Air Conditioning Conference, Purdue University, West Lafayette, Indiana, USA, 2002, pp. 34 – 40.

Reports, Handbooks etc. :

United Nations Environmental Programme, Report of the Refrigeration, Air Conditioning and Heat Pumps, Technical Option Committee, 2002, Assessment - 2002.

ASHRAE Handbook: Refrigeration, 1994 (Chapter 44)

Patent :

Patent no, Country (in parenthesis), date of application, title, year.

Internet :

www.(Site) [Give full length URL] accessed on date

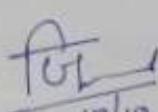
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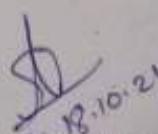
Date: 18th October 2021.

All the students of B. E. Mechanical are here by informed that in wake of In-semester exam the project review has been postponed and **now scheduled on 10th November 2021 [Wednesday]. This review will be conducted offline at the department which implies that all the students shall have to come to department physical for presentation.**

So, begin your presentation in regular consultation with your project guide.

For any queries feel free to contact me at 9890714842.


18/10
Prof. Sagar Upendra Deshpande
Project Coordinator.


18.10.21
Dr. P. A. Makasare
HOD
Department of Mechanical Engg
Siddhant College of Engineering
Mechanical Engineering Department
Sudumbare, Pune- 412109

CC- Principal, SCOE, Sudumbare.



**Siddhant College of Engineering.
Mechanical Engineering Department.**

Notice.

Date: 15th November 2021.

All the students of B. E. Mechanical are here by informed that the 2nd project review has been **scheduled on 26th November 2021 [Friday]. This review will also be conducted offline as that of the previous one and all of you shall be present at the department.**

The following content should be presented at this review.



Complete Literature Review.

Project Title Fixing from Review of Literature.

Methodology for complete Project.

Discussion about Components of the projects and their design.

Gang Chart [Time schedule for entire Project including 2nd semester.].

Updating Project Diary.

So, begin your presentation in regular consultation with your project guide.

For any queries feel free to contact me at 9890714842.

Prof. Sagar Upendra Deshpande.
Project Coordinator.

Department.

Mechanical

Dr. P. A. Makasare
HoD.

Engineering

15.11.21

Project Titles.

Group No.	Names of the Project Group Members.	Roll No.	Title of the Project.	Name of Project Guide.
1	DHURI VIKAS VIJAY	15	Robotic Automation for Welding.	Prof. Praniket Chavan
	DALVI RAKESH LAVOO	13		
	NAIK BALKRISHNA VASANT	44		
	ROHIT RAJENDRA PAWAR	63		
	CHOURASIYA PRINCY CHANDRAKUMAR	12		
	THAKUR PRITI MORESHWAR	81	Bluetooth Control Screw jack.	Prof. B. B. Kedar 9923906993
2	SOLANKE HANUMAN DILIP	74		
	GHUMBRE PRASHANT RUKHMAANGAD	20		
	SUTAR AKSHAY DILIP	77		
	SHINDE PRACHITI GORAKH	73	Thermoelectric Refrigerator.	Dr. P. A. Makasare 8605209533
	LOHAR ABHISHEK SHANKAR	35		
	GARANDE VIDYARANI BIRAJA	17		
3	NEHETE DHANSHRI BHARAT	46		
	NAVGIRE PRATIKSHA VITTHAL	45	PLC Integration for Robotic Welding.	Prof. R. R. Kulkarni 9762999729
	THORAT DIPALI BAPU	82		
	TEMKAR KAJAL KERBHAU	79		
	INAMDAR SARVESH SUNIL	21		
	ARYAN YADAV	93	Design & Development of Ultrasonic Toy Welding	Prof. V. S. Munde 9579283909
4	BHOSALE PRATHAMESH SHIVAJI	10		
	PATIL RAJVARDHAN UDAY	55		
	MANEGHATTA DEEPAK RAMCHANDRA	40		
	BALSURE PRASAD BALIRAM	6	Pedal Powered washing Machine.	Prof. V. S. Munde 9579283909
	BHOLE SHIRIPRASAD RAJENDRA	8		
	PADWAL NITIN NARAYAN	49		

Project Coordinator.

HOD

Project Titles.

Group No.	Names of the Project Group Members.	Roll No.	Title of the Project.	Name of Project Guide.
7	WAGH VAIBHAV MUKUNDRAO	89	Automatic Packging Machine.	Prof. S. I. Bharadiya 8087119204
	MORASKAR ASHISH GAJANAN RANDALE CHETAN DATTA	43 60		
	WAGH SHUBHANGI PURUSHOTTAM SABALE RANJIT POPATRAO	88 64		
8	UTHALE KABEER BHARAT SONWANE SUJIT CHANDRAKANT	85 75	Heavy LASER cutting fixture Handling.	Prof. G. G.Singh 8007534199
	PATIL AKASH TANAJI	51		
	JOTKAR PRASHANT CHANDRAKANT	26		
9	KULKARNI OMKAR UMESHRAO ARGHA SETT	34 3	Stair Climbing Trolley.	Prof. B. B. Kedar 9923906993
	SALUNKE KUMAR SUNIL	66		
	MAHAJAN AJINKYA AVINASH	37		
10	MD QAMAR RAZA	41	Automation in Fixture.	Prof. S. U. Deshpande 9890714842
	MOHARIR GAYATRAI GAJANAN	42		
	DOMBE VIKRAM ANANDA	16		
11	CHOUGALE PRADIP RAGHUNATH	11	Design & Development of Hybrid Solar & Wind Turbine for Street Light.	Prof. Shilpee Ghose 9762812784
	THORAT ROSHAN SATISH	83		
	NITIN DATATRAY PATIL	48		
12	KHARAT SHWETA PARASHRAM	31		
	KHILARI AKASH SAMPAT	32	Design and Analysis of Automatic Tire Inflation System.	Dr. P. A. Makasare 8605209533
	PATIL PRASHANT PRAKASH	54		
	Mayur Phalake	95		

Project Coordinator.
L. S.
HOD

Project Titles.

Group No.	Names of the Project Group Members.	Roll No.	Title of the Project.	Name of Project Guide.
13	THAKAR ABHIJIT KISAN SARITA KISAN THAKAR PATIL MAHESH RAMESH GHULE MAHESH HARIDAS	80 69 52 19	Automated Solar Powered Grass Cutter.	Prof. B.D. Garje 9420172016
14	GHODKE OMKAR DHONDIRAM RAUT VISHWAS CHANDRAKANT SURYAVANSHI GANESH CHANDRAKANT	92 62 76	Automatic Sprayer Machine.	Prof. S. I. Bharadiya 8087119204
15	PATIL PRAJVAL YUVRAJ KHANDEKAR SWAPNIL DINESH SANKET BABAN KHAIRE JADHAV CHANDRAKANT	53 30 68 94		
16	PHALKE MAYUR BHARAT KAJALE AKASH SHESHRAO INAMDAR SUPIYAN CHHOTUBHAI PATHAN ARSHAD AYYUB GHADGE SUSHANT BALASHIRAM VISHWAMBHAR AMISHA MUKESH	58 27 22 50 18 86	Foldable Electric Bicycle.	Prof. V. S. Munde 9579283909
17	MANDURKAR SURESH KISAN KISHOR PARIDA BRATA SHAHAKAR SIDDHANT UMESHKUMAR	39 33 72	Foldable Electric Bicycle.	Prof. R. R. Kulkarni 9762999729
18	BABAR DHANAJI SAMBHAI JADHAV RUSHIKESH SHIVAJI JAMADAR UMAR FARUK DILAWAR KARALE DNYANESHWAR VISHNU PANT	5 23 24 29	3 D Filament Plastic Wire Extrusion Machine.	Prof. G. G. Singh 8007534199
			Manual Cricket Bowling Machine.	Prof. R. R. Kulkarni 9762999729


Project Coordinator.


HOD

Siddhant College of Engineering,
Mechanical Engineering Department.

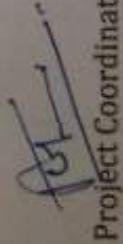
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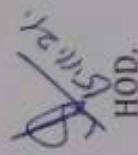
Date: 10th November 2021.

The Panel for Project Review on **28th** November 2021 have been formed. Kindly note your Panel and location for this review.
The Project group of panel member shall be reviewed among themselves at the same locations.

Panel Number.	Panel Members.	Location.
01	Dr. P. A. Makasare.	
	Prof. G. G. Singh.	I. C. Engine Lab.
	Prof. R. H. Tike	
	Prof. B. D. Garje	
02	Prof. P. P. Gedam	CAD-CAM Lab - 01.
	Prof. Shilpi Ghosh	
	Prof. R. R. Kulkarni	
03	Prof. S. I. Bharadiya	CAD-CAM Lab - 02.
	Prof. S. U. Deshpande	

Time : 10 to 12 noon.


Project Coordinator.


HOD.

Siddhant College of Engineering
Mechanical Engineering Department.

Notice.

Date: 10th November 2021.

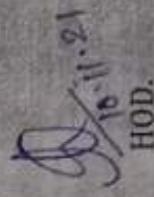
The Panel for Project Review on 11th November 2021 have been formed. Kindly note your Panel and location for this review.
The Project group of panel member shall be reviewed among themselves at the same locations.

Panel Number.	Panel Members.	Location.
01	Dr. P. A. Makasare.	
	Prof. G. G. Singh.	I. C. Engine Lab.
	Prof. R. H. Tike	
	Prof. B. D. Garje	
02	Prof. P. P. Gedam	CAD-CAM Lab - 01.
	Prof. Shilpi Ghosh	
	Prof. R. R. Kulkarni	
	Prof. S. I. Bharadiya	CAD-CAM Lab - 02.
03	Prof. S. U. Deshpande	

Time: 10 to 12 noon.



Project Coordinator.



11.21
HOD.

Review - et.



C.A.Y.M. Education Trust's
SIDDHANT COLLEGE OF ENGINEERING,
 At. Post - Sudumbare, Tal. - Maval, Dist. - Pune, PIN - 412 109.
DEPARTMENT OF MECHANICAL ENGINEERING

Review 1 Assessment Sheet

Date: 11/11/2021

Venue: IC Engine Lab

Sr. No.	Name of the Students.	Project Title.	Reviewer Comments & Sign.	Guide Comments & Sign.
③ 1	Akshay Suthe Abhishek Thorat Rachit Shinde Vidhyutani Gataude	Thermoelectric Refrigeration	Concept is not clear. Need to discuss with project Guide.	
⑪ 2	Poojip Chougule Roshan Thorat Vikram Dombi Nitin Pathi	Design & development of hybrid solar & wind turbine for Street light application	Proceed with the Project. Next Review come with Research Report.	
⑭ 3	Suresh K. Mandarkar Amita M. Vishwambhar Siddhant Shrikar & Kishorbaba Patil	3D Filament Plastic wire Extrusion machine	Proceed with the Project Next Review come with working model concept.	
⑮ 4	Pankit Pandya Sabale Kabera Ulhaque Gujit Sonawane	LASER BED modification, Cutting fixture Handling	Good concept Company sponsored use of pneumatics, Ball Bearing, fixtures.	

U.L.

Project Coordinator

HOD, Mech. Engg.



C.A.Y.M. Education Trust's
SIDDHANT COLLEGE OF ENGINEERING.
At. Post - Sudumbare, Tal. - Maval, Dist. - Pune, PIN - 412 109.

DEPARTMENT OF MECHANICAL ENGINEERING

Review 1 Assessment Sheet

Date: 11/11/2021

Venue: TC Enginee Lab.

Sr. No.	Name of the Students.	Project Title.	Reviewer Comments & Sign.	Guide Comments & Sign.
1	Rakesh Laxmi Davdi Rohit Rajendra Pawar Gaurav Shona Nasoot Haik Vikas Vijay Dhowe	Robotics Automation in welding.	Company sponsored project allowed for video, Robotics arm used for welding, fixture designing Next review Literature Review	
2				
3				
4				

✓

Project Coordinator

HOD, Mech. Engg.



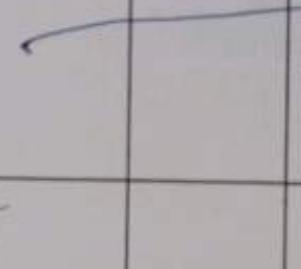
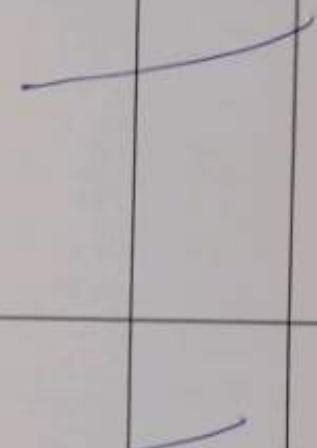
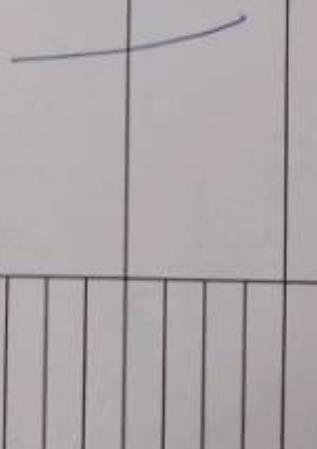
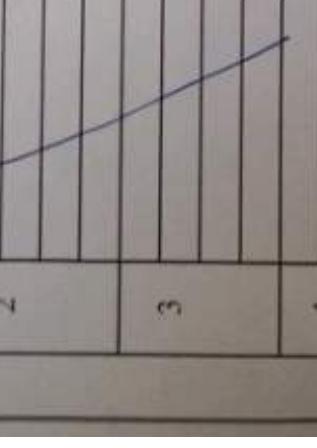
C.A.Y.M. Education Trust's
SIDDHANT COLLEGE OF ENGINEERING.
At. Post - Sudumbare, Tal. - Maval, Dist. - Pune, PIN - 412 109.

DEPARTMENT OF MECHANICAL ENGINEERING

Review 1 Assessment Sheet

Date: 11/10/2021

Venue: TC Engine labs

Sr. No.	Name of the Students.	Project Title.	Reviewer Comments & Sign.	Guide Comments & Sign.
1	Rakesh Laxoo Dalvi Rohit Rajendra Pawar Bhaviksha Nasoot Shaik Nikos Vijay Dsouza	Robotics Automation in welding.	Company sponsored project allowed for video, Robotics arm video for welding, fixture design Next review Literature Review	
2				
3				
4				

Project Coordinator

HOD, Mech. Engg.



C.A.Y.M. Education Trust's
SIDDHANT COLLEGE OF ENGINEERING.
At. Post - Sudumbare, Tal. - Maval, Dist. - Pune, PIN - 412 109.

DEPARTMENT OF MECHANICAL ENGINEERING

Review 1 Assessment Sheet

Date: 11/11/2019

Venue: CAFE/CONF. HALL

Sr. No	Name of the Students.	Project Title.	Reviewer Comments & Sign.	Guide Comments & Sign.
1	Kumar Paluske. Ajintra. Takian. Mo Camer erze ⑩ Gayatri Mohanir	Automation in fixture.	- Add more drawings in presentation. Title implementation & sponsorship letter	- <i>R.G. SUD SUD</i>
2				
3				
4				

AK
Project Coordinator



C.A.Y.M. Education Trust's
SIDDHANT COLLEGE OF ENGINEERING,
Al. Post - Sudumbare, Tal. - Maval, Dist. - Pune, PIN - 412 109.

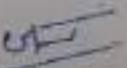
DEPARTMENT OF MECHANICAL ENGINEERING

Review 1 Assessment Sheet

Date: 11 Nov - 2021

Venue: CAD - Lab

Sr. No	Name of the Students	Project Title	Reviewer Comments & Sign.	Guide Comments & Sign.
1	Amrapali Tadeo Swarnak Inamdar	Design & development of Ultrasonic Tool welding unit	Design Project design not complete	RRK SUD SIB
2	Ombar D. Thapke Ranilash S. Mhatre Bhushan S. Sable Pravin R. Togad	- Title not Printed.		RRK SUD SIB
3				
4				


Project Coordinator

HOD, Mech. Engg.



C.A.Y.M. Education Trust's
SIDDHANT COLLEGE OF ENGINEERING.
At Post - Sudumbare, Tal. - Maval, Dist. - Pune, PIN - 412 109.

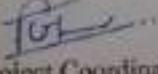
DEPARTMENT OF MECHANICAL ENGINEERING

Review 1 Assessment Sheet

Date: 11th Nov - 2007

Venue: CAD - Lab - 02

Sr. No.	Name of the Students.	Project Title.	Reviewer Comments & Sign.	Guide Comments & Sign.
1	Mahesh R. Patil Abhilash K. Thakar	Automated solar Powered grass cutter	Topic is good change this topic topic topic	Topic is not suitable topic is not clear
2	Omkar Ghodke Vishwanath Raut Patil Pratik Suyash Vanshi Ganesh	Automatic Sprayer machine	Topic is good acceptable topic	Topic is suitable continue
3	Deepak R. Manechhatte Kiran R. Patil Shreepurna P. Patil	Pedal operated washing machine	Topic Topic is good topic topic	Continue with the topic Next - improve
4				


Project Coordinator

HOD, Mech. Engg.

Siddhant College of Engineering
Mechanical Engineering Department.

Review 1

11th November 2021

Group No.	Names of the Project Group Members.	Sign -	Roll No.	Title of the Project.	Name of Project Guide.
1	DHURI VIKAS VIJAY	✓	15	Robotic Automation for welding (MIG)	Prof. R. H. Tike 9762812784 Prof. S. U. D.
	DALVI RAKESH LAVOO	✓	13		
	NAIK BALKRISHNA VASANT	✓	44		
	ROHIT RAJENDRA PAWAR	✓	63		
2	CHOURASIYA PRINCY CHANDRAKUMAR		12	Bluetooth control Screw Jack	Prof. B. B. Kedar 9923906993
	THAKUR PRITI MORESHWAR		81		
	SOLANKE HANUMAN DILIP	✓	74		
	GHUMBRE PRASHANT RUKHMAANGAD	✓	20		
3	SUTAR AKSHAY DILIP	✓	77	— ABSENT —	Dr. P. A. Makasare 8605209533
	SHINDE PRACHITI GORAKH		73		
	LOHAR ABHISHEK SHANKAR		35		
	GARANDE VIDYARANI BIRA		17		
4	NEHETE DHANSHRI BHARAT		46	— ABSENT —	Prof. R. R. Kulkarni 9762999729
	NAVGIRE PRATIKSHA VITTHAL		45		
	THORAT DIPALI BAPU		82		
	TEMKAR KAJAL KERBHAU		79		
5	INAMDAR SARVESH SUNIL	✓	21	— ABSENT —	Prof. V. S. Munde 9579283909
	ARYAN YADAV	✓	93		
	BHOSALE PRATHAMESH SHIVAJI		10		
	PATIL RAJVARDHAN UDAY		55		
6	MANEGHATTA DEEPAK RAMCHANDRA	✓	40	Product Recovery Unstacking Machine	Prof. V. S. Munde 9579283909
	BALSURE PRASAD BALIRAM	✓	6		
	BHOLE SHRI PRASAD RAJENDRA	✓	8		
	PADWAL NITIN NARAYAN		49		

**Siddhant College of Engineering,
Mechanical Engineering Department.**

Review 1

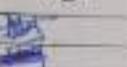
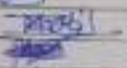
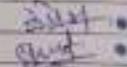
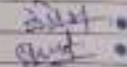
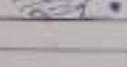
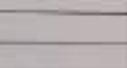
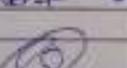
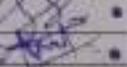
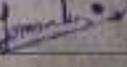
11th November 2021

Group No.	Names of the Project Group Members.	Sign	Roll No.	Title of the Project.	Name of Project Guide.
7	WAGH VAIBHAV MUKUNDRAO		89	— ABSENT —	Prof. S. I. Bharadiya 8087119204
	MORASKAR ASHISH GAJANAN		43		
	RANDALE CHETAN DATTA		60		
	WAGH SHUBHANGI PURUSHOTTAM		88		
8	SABALE RANJIT POPATRAO	201971	64	Heavy LASER cutting fixture Handling.	Prof. G. G. Singh 8607534199
	UTHALE KABEER BHARAT	Bindu	85		
	SONWANE SUJIT CHANDRAKANT	Shivam	75		
	PATIL AKASH TANAJI		51		
9	JOTKAR PRASHANT CHANDRAKANT		26	— ABSENT —	Prof. B. B. Kedar 9923906993
	KULKARNI OMKAR UMESHRAO		34		
	ARGHA SETT		3		
	SALUNKE KUMAR SUNIL	Suraj	66		
10	MAHAJAN AJINKYA AVINASH	Arjun	37	Automation in Fixture.	Prof. S. U. Deshpande 9890714842
	MD QAMAR RAZA	Qmar	41		
	MOHARIR GAYATRAI GAJANAN		42		
	DOMBE VIKRAM ANANDA		16		
11	CHOUGALE PRADIP RAGHUNATH	Chaitanya	11	Design & Development of Hybrid Solar & Wind Turbine For Street Light Application	Prof. S. Ghose Prof. R. H. Tike 869062811
	THORAT ROSHAN SATISH	Satish	83		
	NITIN DATTATRAY PATIL		48		
	KHARAT SHWETA PARASHRAM		31		
12	KHILARI AKASH SAMPAT		32	— ABSENT —	Dr. P. A. Makasare 8605209533
	PATIL PRASHANT PRAKASH		54		
	KAUSHAL RASKAR		95		
	Prayag Prashant Raskar	Prayag			

Siddhant College of Engineering
Mechanical Engineering Department.

Review 1

11th November 2021

Group No.	Names of the Project Group Members.	Sign	Roll No.	Title of the Project.	Name of Project Guide.
13	THAKAR ABHIJIT KISAN SARITA KISAN THAKAR PATIL MAHESH RAMESH GHULE MAHESH HARIDAS	   	80 69 52 19	Automated Solar Powered Grass cutter	Prof. B.D. Garje 9420172016
14	GHODKE OMKAR DHONDIRAM RAUT VISHWAS CHANDRAKANT SURYAVANSHI GANESH CHANDRAKANT PATIL PRAJVAL YUVRAJ	   	92 62 76 53	Automatic Sprayer machine	Prof. S. I. Bharadiya 8087119204
15	KHANDEKAR SWAPNIL DINESH SANKET BABAN KHAIRE JADHAV CHANDRAKANT PHALKE MAYUR BHARAT		30 68 94 58	— ABSENT —	Prof. V. S. Munde 9579283909
16	KAJALE AKASH SHESHRAO INAMDAR SUPRIYAN CHHOTUBHAI PATHAN ARSHAD AYYUB GHADGE SUSHANT BALASHIRAM		27 22 50 18	— ABSENT —	Prof. R. R. Kulkarni 9762999729
17	VISHWAMBHAR AMISHA MUKESH MANDURKAR SURESH KISAN KISHOR PARIDA BRATA SHAHAKAR SIDDHANT UMESHKUMAR	   	86 39 33 72	— ABSENT —	Prof. G. G. Singh 8007534199
18	BABAR DHANAJI SAMBHAI JADHAV RUSHIKESH SHIVAJI JAMADAR UMARFARUK DILAWAR KARALE DNYANESHWAR VISHNUPANT	   	5 23 24 29	— —	Prof. R. R. Kulkarni 9762999729

Siddhant College of Engineering
Mechanical Engineering Department.

Review 1

11th November 2021

19	JAMBUKAR NIKHIL SAMBHaji	25	— ABSENT —	Prof. P.P. Gedam
	SAMRUDDHI PRASHANT VAIDYA	67		
	SAWANT TEJAS HARESHWAR	71		
	THORAT SARVADNYA VIJAY	84		
20	SAURABH PATANKAR	70	— ABSENT —	Prof. B. B. Kedar 9923906993
	AVINASH JAYADATTa KALE	4		
	KALE VITTHAL RAMKISAN	28		
	BHOSALE AISHWARYA SUNIL	9		
21	PRADIP PRAKASH KAPDI	59	— ABSENT —	Prof. P.P. Gedam 9881316857
	NIKHIL KACHARU KHARMARE	47		
	WAGH ASHUTOSH RAHUL	87		
	DESHPANDE AMOL SURESH	91		
22	PATIL RITURAJ BALASAHEB	56	Magnetic Gear Drive	Prof. V. S. Munde 9579283909
	PATIL UDIT DEVIDAS	57		
	M SANJAY	36		
	RANDHARE VAIBHAV SAHADEV	61		
23	LENDHARE VIPUL ANMOL	1	To be decided	Prof. S. Ghose
	ABHISHEK KUMAR PANDEY	2		
	BHANDARE ROHIT RAJENDRA	7		
	DHAS SURAJ JAYRAM	14		
24	MAHANGARE KAMLESH SHANKAR	38	Dynamotic Refrigeration Test Rig.	Prof. S. U. Deshpande 9890714842
	SABLE RUSHIKESH SATISH	65		
	TAGAD PRAVIN RAJU	78		
	WAGHUMBARE ASHISH KRISHNA	90		
YONDUF OMKAR DATTA				

A Project Stage-I Report on
(TNR, 16pt, centrally aligned)

Title of the Project Report

(TNR, 27pt, Bold, Centrally Aligned, Title Case)

By
(TNR, 16pt, Centrally Aligned)

Mr. Student's 1 Name
(TNR, 16pt, Centrally Aligned)

Mr. Student's 2 Name
(TNR, 16pt, Centrally Aligned)

Mr. Student's 3 Name
(TNR, 16pt, Centrally Aligned)

Mr. Student's 4 Name
(TNR, 16pt, Centrally Aligned)

Guide
Guide's Name
(TNR, 16pt, Centrally Aligned)

Institute Logo

Department of Mechanical Engineering
Name of the Institute
[2018-19]

(TNR, 22pt, Title Case Centrally Aligned)



Siddhant College of Engineering
Department of Mechanical Engineering
(A.Y. 2021-2022) Semester-I

Project Review Assessment Sheet.

Review No. : 24

Venue: LC Lab

Date: 31/03/2022

Sr. No.	Group No.	Project Title.	Reviewer's Comment & Sign	Name of Student.
01	05	Design and Development of Ultrasonic toy welding machine.	Project Stage I Report Submitted.	Ayush Yeddu Gaurav Tiwari
02	08	Heavy Laser cutting - Six-axis Handling - 5 axis laser	Project Stage I Report Submitted literature Survey Study	Abhiraj Uthale Akash Patil
03	16	Design, Analysis and manufacturing of foldable Electric Bicycle	Stage I Report not submitted Presentation slide not ready	Sushman Gadge Akash Kajole
04	20		Senchal chambhara	Avinash kale
05			Praniket Chavhan	<u>Planan</u>
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			1	
			1	
			1	

Project Coordinator.

HoD

Group No.	Names of the Project Group Members.	Sign	Roll No.	Title of the Project.	Name of Project Guide.
1	DHURI VIKAS VIJAY		15		
	DALVI RAKESH LAVOO		13	Robotic Automation for Welding.	Prof. P. P. Chavan 9762812784
	NAIK BALKRISHNA VASANT		44		
	ROHIT RAJENDRA PAWAR		63		
	CHOURASIYA PRINCY CHANDRAKUMAR		12		
	THAKUR PRITI MORESHWAR		81	Bluetooth Control Screw jack.	Prof. B. B. Kedar 9923906993
	SOLANKE HANUMAN DILIP		74		
	GHUMBRE PRASHANT RUKHMAANGAD		20		
	SUTAR AKSHAY DILIP		77		
	SHINDE PRACHITI GORAKH		73	Thermoelectric Refrigerator.	Dr. P. A. Makasare 8605209533
3	LOHAR ABHISHEK SHANKAR		35		
	GARANDE VIDYARANI BIRAD		17		
	NEHETE DHANSHRI BHARAT		46	PLC Integration for Robotic Welding	Prof. R. R. Kulkarni 9762999729
	NAVGIRE PRATIKSHA VITTHAL		45		
	THORAT DIPALI BAPU		82		
	TEMKAR KAJAL KERBHAU		79		
	INAMDAR SARVESH SUNIL		21	Design of Development of Ultrasonic Welding	Prof. V. S. Munde 9579283909
	ARYAN YADAV		93		
	BHOSALE PRATHAMESH SHIVAJI		10		
	PATIL RAJYARDHAN UDAY		55		
4	MANEGHATTA DEEPAK RAMCHANDRA		40		
	BALSURE PRASAD BALIRAM		6	Pedal Powered washing Machine.	Prof. V. S. Munde 9579283909
	BHOLE SHIRPRASAD RAJENDRA		8		
	PADWAL NITIN NARAYAN		49		
5					
6					

**Siddhant College of Engineering,
Mechanical Engineering Department.**

Notice.

Date: 28th March 2022.

All the students of B. E. Mechanical are here by informed that the 4th project review has been **scheduled on 31st March 2022 [Thursday]**. From 10 in morning up to 12 pm. ***This review will also be conducted offline as that of the previous one and all the project group members must be present for the same.***

The following content should be presented at this review.

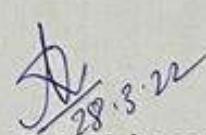
- *Complete Literature Review.*
- *Status of Experimentation..*
- *Rough Draft of Complete Project.*
- *Methodology for complete Project.*

So, begin your preparation in regular consultation with your project guide.

For any queries feel free to contact me at 9890714842.


Prof. Sagar Upendra Deshpande.
Project Coordinator.

Department.


Dr. P. A. Makasare
HoD.
Mechanical Engineering



CAYMET's

**Siddhant College of Engineering,
Department of Mechanical Engineering.
(A.Y. 2021-2022) Semester -I**

Review No. : 03

Project Review Assessment Sheet.

Venue. F&AC RoomDate: 11/12/2021

Sr. No.	Group No.	Project Title.	Reviewer's Comment & Sign	Name of Student.
01	08	Heavy LASER cutting fixture Handling (- S.G. Singh)	RR Kulkarni - <u>Excellent</u> - Met you guide for metal cutting - Sponsorship letter of GE mala is required	Ranjit Solanki <u>Submitted</u> Gujit Sonwane <u>Submitted</u> Kabeer Uthale <u>Submitted</u>
02	04	PLC Integration for Robotic welding (- RR Kulkarni)	RR Kulkarni - <u>Excellent</u> - OK, Arrange the visit with guide - In sponsored project beginning application - Complete your project before discussion	AKASH PARIL - <u>Excellent</u> Koyal Tekkar - <u>Excellent</u> Pratikh Navgire <u>Submitted</u> Dhanashri Nerkar <u>Submitted</u> Dipali Thorat <u>Submitted</u>
03	23	High Temperature water cooling jacket (Shipper & receiver)	RR Kulkarni - <u>Excellent</u> - Discuss guide for topic - As per discussion made for connection, if any	Bhavikar Rohit Rayand <u>Submitted</u> Akshayk Pandey <u>Submitted</u> Smita Dhas <u>Submitted</u> Vipul Lendhare <u>Submitted</u>
04				
05				

Project Coordinator.

HoD

Siddhant College of Engineering
Mechanical Engineering Department.

Review 3

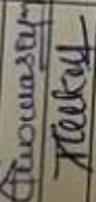
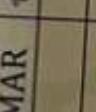
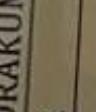
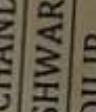
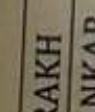
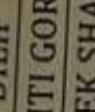
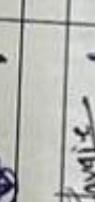
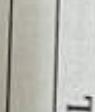
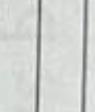
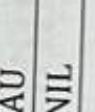
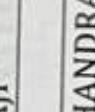
11th December 2021

Group No.	Names of the Project Group Members.	Sign	Roll No.	Title of the Project.	Name of Project Guide.
1	DHURI VIKAS VIJAY		15	Robotic Automation for Welding.	Prof. R. H. Tike 9762812784
	DALVI RAKESH LAVOO		13		
	NAIK BALKRISHNA VASANT		44		
	ROHIT RAJENDRA PAWAR		63		
	CHOURASIYA PRINCY CHANDRAKUMAR	—	—		
	THAKUR PRITI MORESHWAR	<u>Praveen</u>	12		
2	SOLANKE HANUMAN DILIP	<u>1</u>	81	Bluetooth Control Screw jack.	Prof. B. B. Kedar 9923906993
	GHUMBRE PRASHANT RUKHMAANGAD	—	74		
	SUTAR AKSHAY DILIP	—	20		
	SHINDE PRACHITI GORAKH	77			
	LOHAR ABHISHEK SHANKAR	73			
	GARANDE VIDYARANI BIRAD	35			
3	NEHETE DHANSHRI BHARAT	17		Thermoelectric Refrigerator.	Dr. P. A. Makasare 8605209533
	NAVGIRE PRATIKSHA VITTHAL	<u>Swati</u>	46		
	THORAT DIPALI BAPU	<u>Shweta</u>	45		
	TEMKAR KAJAL KERBHAU	<u>Shweta</u>	82		
	INAMDAR SARVESH SUNIL	<u>Shweta</u>	79		
	ARYAN YADAV	21			
4	BHOSALE PRATHAMESH SHIVAJI	93		PLC Integration for Robotic welding	Prof. R. R. Kulkarni 9762999729
	PATIL RAJIVARDHAN UDAY	55			
	MANEGHATTA DEEPAK RAMCHANDRA	40			
	BALSURE PRASAD BALIRAM	6			
	BHOLE SHIRIPRASAD RAJENDRA	8			
	PADWAL NITIN NARAYAN	49			

2nd Review
**Siddhant College of Engineering,
Mechanical Engineering Department.**

Review 2

26th November 2021

Group No.	Names of the Project Group Members.	Sign	Roll No.	Title of the Project.	Name of Project Guide.
1	DHURI VIKAS VIJAY DALVI RAKESH LAVOO NAIK BALKRISHNA VASANT ROHIT RAJENDRA PAWAR	 	15 13 44	Robotic Automation for Welding.	Prof. R. H. Tike 9762812784
2	CHOURASIYA PRINCY CHANDRAKUMAR THAKUR PRITI MORESHWAR SOLANKE HANUMAN DILIP GHUMBRE PRASHANT RUKHMAANGAD	   	63 12 81 20	Bluetooth Control Screw jack.	Prof. B. B. Kedar 9923906993
3	SUTAR AKSHAY DILIP SHINDE PRACHITI GORAKH LOHAR ABHISHEK SHANKAR GARANDE VIDYARANI BIRAJ NEHETE DHANSHRI BHARAT	    	74 77 73 35 17	Thermoelectric Refrigerator.	Dr. P. A. Makasare 8605209533
4	NAVGIRE PRATIKSHA VITTHAL THORAT DIPALI BAPU TEMKAR KAJAL KERBHAU INAMDAR SARVESH SUNIL	   	46 45 82 21	PLC Integration for Robotic welding	Prof. R. R. Kulkarni 9762999729
5	ARYAN YADAV BHOSALE PRATHAMESH SHIVAJI PATIL RAJvardhan UDAY MANEGHATTA DEEPAK RAMCHANDRA	   	93 10 55	ULTRASONIC Toy Welding (Design of Project.)	Prof. V. S. Mundhe 9579283909
6	BALSURE PRASAD BALIRAM BHOLE SHRIPRASAD RAJENDRA PADWAL NITIN NARAYAN	  	40 6 8	Pedal Powered washing Machine.	Prof. V. S. Mundhe 9579283909

**Siddhant College of Engineering,
Mechanical Engineering Department.**

Notice.

The Panel for Project Review on 11th December 2021 have been formed. Kindly note your Panel and location for this review.
The Project group of panel member shall be reviewed among themselves at the same locations.

Panel Number.	Panel Members.	Location.
01	Dr. P. A. Makasare.	
	Prof. G. G. Singh.	I. C. Engine Lab.
	Prof. R. H. Tike	
02	Prof. B. D. Garje	
	Prof. P. P. Gedam	CAD-CAM Lab - 01.
	Prof. Shilpi Ghosh	
03	Prof. R. R. Kulkarni	
	Prof. S. I. Bharadiya	CAD-CAM Lab - 02.
	Prof. S. U. Deshpande	

Time : 10 to 12 noon.



Project Coordinator.


HOD.



Siddhant College of Engineering,
Mechanical Engineering Department.

Notice,

Date: 06th December 2021.

All the students of B. E. Mechanical are hereby informed that the 3rd project review has been scheduled on 11th December 2021 [Saturday]. This review will also be conducted offline as that of the previous one and all the project group members must be present for the same.

The following content should be presented at this review.

- Complete Literature Review.
- Outcomes from the Review of Literature.
- Project Title fixing from the above point.
- Methodology for complete Project.
- Design calculations and CAD Model of the Project Components and its Assembly.
- Draft required for University Project Stage 1 Exam.

So, begin your preparation in regular consultation with your project guide.

For any queries feel free to contact me at 9890714842.

U. Upendra
6/12/21

Prof. Sagar Upendra Deshpande.
Project Coordinator.

Department.

P. A. Makasare
6/12/21
Dr. P. A. Makasare
HoD.
Mechanical Engineering

Notice.

Date: 06th December 2021.

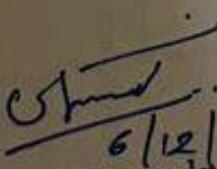
All the students of B. E. Mechanical are here by informed that the 3rd project review has been **scheduled on 11th December 2021 [Saturday]. This review will also be conducted offline as that of the previous one and all the project group members must be present for the same.**

The following content should be presented at this review.

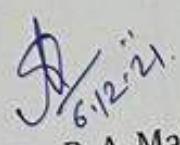
- *Complete Literature Review.*
- *Outcomes from the Review of Literature.*
- *Project Title fixing from the above point.*
- *Methodology for complete Project.*
- *Design calculations and CAD Model of the Project Components and its Assembly.*
- *Draft required for University Project Stage 1 Exam.*

So, begin your preparation in regular consultation with your project guide.

For any queries feel free to contact me at 9890714842.


6/12/21
Prof. Sagar Upendra Deshpande.
Project Coordinator.

Department.


6/12/21
Dr. P. A. Makasare
HoD.
Mechanical Engineering



Siddhant College of Engineering.
Department of Mechanical Engineering.
 (A.Y. 2021-2022) Semester -I

Review No.: 02

Project Review Assessment Sheet.

Sr. No.	Group No.	Project Title.	Reviewer's Comment & Sign	Name of Student
01	06	Pedal Operating (Gear) Washing Machine	<ul style="list-style-type: none"> → Make work progress flow chart along with your guide → Come with design draft <u>Arifuddin</u>	Deepak Maneegatta Prasad. B. Balawure Nitin Padwal Shreeprad Bhole Aryan Yadav Sarvesh Inamdar Prathmesh Bhole Rajvardhan Patil Siddhant Shukla Suresh Mondalkar
02	05	Design & Development of Ultrasonic Toy welding Machine	<ul style="list-style-type: none"> → Good workout on previous questions. → CAD model, 8-10 research paper → Literature review to be done 	Kishor Parda Amisha Vishwambhar
03	17	3D Filament Wire Extrusion Machine	<ul style="list-style-type: none"> → CAD model is ready. → Fabrication parts are purchased → Good progress. → Design calculation required. → Remove Greer Box. 	

Date: 26/11/21

Venue: 1C Engine

CAYMET's
Siddhant College of Engineering.
Department of Mechanical Engineering.
(A.Y. 2021-2022) Semester -I



Review No. : 02

Project Review Assessment Sheet.

Review No. : 02

Venue. 1C Engine Lab

Date: 26/11/2021

Sr. No.	Group No.	Project Title.	Reviewer's Comment & Sign	Name of Student.
01	3	Thermoelectric Refrigeration System	<p>→ Follow the methodology given by your respective Guide</p> <p>→ Go-through with Research paper</p> <p>→ Need to improve basic and and and something innovative</p> <p>→ Need to Improve the presentation</p> <p>→ Main research papers must submit</p> <p>→ Good concept</p>	Akshay Sutar Prachi Shinde Abhishek Lohar Vidyanani Galande Pradip Chougale Vikram Dombre Roshan Thorat Titin Patil Rakesh Davvi Vikas Dhuri Balkishna Naik Rohit Pawar.
02	11	Design & Development of Hybrid Solar & Wind Turbine For Streetlight Electricity Applications		
03	01	Automated Robotic welding machine..	<p>→ Good presentation</p> <p>→ Company sponsored project</p> <p>→ Mathematical model required</p> <p>→ Literature review required</p>	

University Press, UK, 1996, pp. 110 – 112.

Papers from Journal or Transactions :

Jung, D. S. and Radermacher, R., Transport properties and surface tension of pure and mixed refrigerants, *ASHRAE Trans*, 1991, 97 (1), pp. 90 – 98.

Bansal, P. K., Rupasinghe, A. S. and Jain, A. S., An empirical correction for sizing capillary tubes, *Int. Journal of Refrigeration*, 1996, 19 (8), pp. 497 – 505.

Papers from Conference Proceedings :

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Patent no, Country (in parenthesis), date of application, title, year.

Internet :

www.(Site) [Give full length URL] accessed on date

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 - iii. Acknowledgements
 - iv. Contents
 - v. List of Figures
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 - 1.1 Problem statement (TNR – 12)
 - 1.2 Objectives
 - 1.3 Scope
 - 1.4 Methodology
 - 1.5 Organization of Dissertation
- 2. Literature Review (20-30 pages)
Discuss the work done so far by researchers in the domain area and their significant conclusions. No derivations, figures, tables, graphs are expected.
- 3. This chapter shall be based on your own simulation work (Analytical/ Numerical/FEM/CFD) (15- 20 pages)
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Reference Books :

Collier, G. J. and Thome, J. R., Convective boiling and condensation, 3rd ed., Oxford