

Terna Public Charitable Trust's Terna Engineering College, Nerul, Navi-Mumbai 400706

1.2.2./1.2.3- Add on courses/ Certificate courses

Sr. No.	Program	Content	Page No.	
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Approved by AICTE & Affiliated to University of Mumbai)

TERNA ENGINEERING COLLEGE

(Plot No. 12, Sector 22, Opposite Railway Station, Nerul (W), Navi Mumbai- 400706. Ph. +91 22 61115444, Fax No.+91 22 61115400

Web: https://ternaengg.ac.in/

Report on

workshop on Ethical Hacking

Enrolled Students

T.E. & B.E. EXTC Engineering

Academic Year:

2023-2024

Organized by

IETE committee of department EXTC

Engineering, TEC In Association with

TeleNetworks India Ltd. Vashi

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1. Meeting, Approval and MOU

1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

02.02.2024

With reference to meeting held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of EXTC Engineering has planned to conduct Value added courses to provide knowledge to students regarding for vital subjects of our discipline. The following faculty members were present in the meeting conducted on 2nd Feb, 2024

The HOD and the staff members concluded the following Value Added Courses for the academic year 2023-2024

SL. No.	Name of Value Added Course	Semester	Hours	Staff Incharge
1.	Ethical Hacking	VI and VIII	30	Rupali Shekokar

In the meeting it was decided to prepare the schedule of the program by the staff incharge within a week from the date of meeting.

- 1) Dr. Jyothi Digge (HOD)
- 2) Rupali Shekokar (Course Coordinator)
- 3) IETE committee members

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Nerul, Navi Mumbai - 400 706



Message to students







ical Hacking

IETÉ COMMITTEE OF TERNA ENCIMERATIVO COLUMBE IN COLLABORATION WITH TELENETWORK TECHNOLOGIES



"Master the Art of Ethical Hacking: Protect, Defend, Secure"

DATE:- I5th to I9th FEB 2024 TIME:- I0 AM VENUE:- Room No. II0 For any queries contact: NINAD: 96/9248983 SIDHANT:8850826925

> Dr. Jyothi Digge Dept. of EXTC Engg.

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1.2 Approval

To,
The Principal,
Terna Engineering College,
Sector 22,
Nerul, Navi Mumbai.

Subject: Regarding permission for upcoming activity under IETE

Respected Sir.

This is to request you to allow us to conduct upcoming activities under IETE.

Activities are ;

Date	Activity Name	Speaker/Guest		
1 February 2024	IETE Day Celebration	Dr. Ragha L.K.		
12 February 2024	Seminar on "What is new in cyber security?"	Dr. Shravani Shahapure PhD (Cryptography)		
15 February 2024	day workshop on "Network associate"	Mr. Yogesh Hudale Telenetworks, Vashi		

Thank you.

Yours Sincerely,

Rupali Shekokar IETE Coordinator

1

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Plot No. 12, Sector 22, Opposite Rallway Station, Nerul(W), Navi Mumbai- 400706. Ph. +91 22 61115444, Fax No.+91 22 61115400 Web :www.terna.org. e- mail : principal@terna.org

Department of EXTC Engineering ACADEMIC

YEAR 2023 - 2024

1. Title of the course

: workshop on Ethical Hacking

2. Objective of the course

1. Hands-on experience on KALI Linux

2. To learn fundamentals of ethical hacking

3. Cybersecurity concepts and the importance of digital protection

4. Hands-on sessions on encryption and data masking

5. Simulate and defended against a cyber attack using tools like KALI Linux

6. Gaps in the existing technologies and space for upcoming technology.

7. Career guidance for the domains Telecom/Networking/Cloud/Cyber Security.

3. Prerequisite

: Basics of Wireless Network

4. Beneficiary

: Students and Faculties

5. Date & Duration of the course:15,Feb2024 to 19,Feb 2024

6. No of hours required

: 30 Hours

7. Internal Resources

: computer lab

8. Internal Assessment

: Feedback

9. Course Registration fees

: free of cost for students

10. Contents of the course

: Enclosed

11. Credits / Certification

: Those who have 75% attendance are eligible for certification.

12. Venue

: 110 class room and 216 Lab

Course Coordinator

TERNA ENGINEE Nerul, Navi Mumbar - 400 706



Regd. No. E-91,(Osmanabad) Dated 30-09-80 Regd. No. E-91,(Osmanabad)
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Department of Electronics and Telecommunication Engineering

ACADEMIC YEAR 2023 - 2024

CIRCULAR

All the students of semester VI & VIII and faculties of department of EXTC Engineering Terna Engineering College, Nerul, Navi Mumbai, are hereby informed to enroll their names for Workshop on "Ethical Hacking".

COURSE FEATURES:

Course Duration

: 30 Hours

Beneficiary

: Students & Faculties

Certificate

: Yes

Location

: Room no. 110,216

Schedule

: 15,Feb2024 to 19,Feb 2024

PRINCIPAL TERNA ENGINEER DLLEGE Nerul, Navi Mumbai - 400 706 HOD

Dept. of EXTC Engg

2. About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and premium technical institution, with 'A' Grade from Government of Maharashtra having ISO 9001 Quality Management System and is among the top Colleges in Mumbai. It is located at Nerul, Navi Mumbai on a beautiful 3 acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG and 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote centre of IIT Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

2.1 About Department

The Department of EXTC Engineering was established in the year 1991.. The Mission of Department To catalyze and inspire young minds for innovative thinking and creativity and to acquire knowledge and professional ethics essential for facing global challenges in rapidly changing technologies to serve the society and industry effectively. Key Features:

- Well Equipped Laboratories Postgraduate Laboratory Microprocessor Laboratory ,
 Digital Signal processing Laboratory, Electronics Devices Circuit Laboratory,
 Communication Laboratories, Simulation Laboratory, Fiber Optic Communication
 Laboratory
- Faculties with Experience in Research in Antenna Fiber Optic communication, Embedded Communication Microwave Engineering VLSI technology in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-for TE EXTC at MTNL Pawai
- Internship for Students (With & Without Stipend)
- Institute of Electronics and Telecommunication Engineering Chapter
- Expert Lectures by Industry and Academics Experts
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning

Patents

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3. About Course

This course covers the learning of fundamentals of ethical hacking, Cyber security concepts and the importance of digital protection Hands-on sessions on encryption and data masking us

software based on Kali Linux with its different features. It will also helpful for student to learn Advanced topics Network Security and Cyber security. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 30 hours.

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4. About Trainer

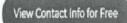
There Instructors are industry experts who have vast experience and knowledge in Telecom, Networking, Cyber Security, Cloud and Data Center domains and they have conducted corporate Trainings in different Organizations and learning Institutions across India on the said domains.

Bio data of trainer:



Yogesh Hudale

Director at TeleNetworks Technologies Private



Profile Privaty & 1

Yogesh Hudale Email & Phone number

Engage via Email Tatelenelworks oru

Engage via Phorie

Engage via Mobile

Yogesh Hudale Current Workplace

Company Tale Volvoy us Technologies Private

Address 202 Washi infotech Park Plot No lif, Mambai. Maharashtra, 400703, india

Phone Number +918652740973

Number of Employees 74

industry

Salines Software & Technical C.

Yogesh Hudale Work Experience Summary

Number of companies worked for

Average duration alle company (rears)

3

Number of provides

FERNA ENCINEER DE COLLEGE Nerul, Navi Mumbai - 400 706



Yogesh Hudale

Founder and Chief Meriot at Tele Networks Technologies

Trouble south to price to be note.

Steel Comment

Vogesh has professionally worked for the last five years with an emphasis in concharg for candislates in Telecommunication. Networking and Cyber Security. Yogesh also conclus CEO's. Somer Executives and Professionals who face significant challenges navigating fast changing Technology. Yogesh's contrise includes individual clients in several commes and varied professions. He is also a frequent speaker about least sechnologies and teacher of coaching skills around the country as well as a lead instructor for several technical workshops for the corporate. He partners with organizations in the design and follows of networks. He also leads a team at TeleNetworks. Technologies which is doing research in Software Defined Networking and Software Interests.

His 5 years of professional practice couble him to be a couch who notches and transforms lives and careers, and a Mentor who actually transfers learning not the participants through proven methods and practices. A deep insight into people matters has resulted in high upper demand for his personality profiling, exacting and shall building training services in the areas of technological methodological methodological methodological methodological methodological methodological methodological methodological shalls.

He has conducted over 35 workshops and done over 500 hours of coaching with organizational leaders. He is accredited in the seage of The Leadershop in faculty maining program of faculty of done to Manha University, playing the vital role of lead instructor in many HT's TECHE-STs and contributing into guest address in many reputed organization.

t. W. L. D. C. P. C.

Director at Tele Actions I echnologies.

April 2016 Present

Service Delivery Manager at TEFRA Enterprises

August 2015 - April 2016 : 1881

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20%





5. Schedule and Syllabus

Day	Date	Activity
Day 1	15.02.2024 10am to 4pm	1. Introduction to fundamentals of ethical hacking. 2. Coverage of basic concepts: ethical vs. malicious hacking, legal and ethical considerations, and the role of ethical hackers. 3. Introduction to essential tools and techniques: network scanning, vulnerability assessment, and penetration testing.
Day 2	16.02.2024 10am to 4pm	 Exploration of network security assessment techniques to identify vulnerabilities. Discussion of strategies for mapping network topologies and identifying critical assets. Hands-on exercises in network scanning and vulnerability mapping in a simulated environment.
Day 3	17.02.2024 10am to 4pm	 Introduction to key cybersecurity concepts and the importance of digital protection. Discussion of recent cyber attacks and common threats, with interactive activities on phishing and encryption. Demonstrations of cybersecurity software, insights from an industry expert, and opportunities for Q&A on career opportunities and future trends.
Day 4	18.02.2024 10am to 4pm	1. Learning advanced methods for detecting cyber threats using tools like KALI Linux and techniques for responding to sophisticated attacks. 2. Coverage of strategies for incident response, management, and data protection laws, with practical exercises on simulating cyber attacks. 3. Hands-on sessions on encryption and data masking, team projects to develop cybersecurity solutions, and presentations on key concepts.
Day 5	19.02.2024 10am to 4pm	1. Review of key concepts and tools covered during the workshop, with a final hands- on challenge to apply knowledge. 2. Teams simulated and defended against a cyber attack using tools like KALI Linux, virtual machines, IP address tracking, proxies, and jump hosts. 3. Participants provided feedback, received certificates of completion, and attended closing remarks emphasizing the importance of cybersecurity skills and continued education.





6. CO, PO & PSO

After completion of the course the student will be able to analyze and design the structure.

6.1 Program Outcome

- **PO 1:** -Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
- **PO 3:** Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO 4:** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **PO 6:** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- **PO7:** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- **PO 9: -** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- **PO 10:** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- **PO 11:** Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and

life-long learning in the broadest context of technological change.

6.2 Program Specific Outcome

1. Design and implement modern communication systems and networks.

2. To enhance technical competency in image and video processing.

PRINCIPAL PERNA ENCINEER MALEGE Nerul, Navi Mumbai - 400 706 3. To architect and implement IOT based Networks to solve the real world problems and contribute something to the value based society.

7. PO & PSO Mapping

PO and PSO mapping with Workshop on Ethical Hacking

PO1	PO2	PO3	PO4	PO5	PO6	P07	PO8	PO9	PO10	PO11	PO12
1				2	2		2				2

PSO1	PSO2	PSO3		
2		1		

PO and PSO mapping with Workshop on Ethica' Hacking

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
0.26		11		0.52	0.52		0.52				0.52

PSO1	PSO2	PSO3
0.52		0.26

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8. List of Students and Attendance

3	thical Hacking	15	102	124	
Sr No	Name	Year	Div.	Roll No.	Signature
	Atharia Sandeep Shinde	TE	A	19	Sharva
	Sahil Needes Mhahi	TE	A	16	diatrie
	Momin Sobail Altaj Husah	TE	A	30	Mischell
	Anushvee R. Idekay	TE	A	14	Rackar
	Prevna Sachin Wagh	TE	B	36	Paruage
	Akantsha Jagtap	TE	A	46	A 5 Jugar
	Nardani Inde	TE	A	47-	NU-
	Chetan Jagtap	TE	A	45	C30545
	Giddharth Parab	TE	A	36	Spring
-	TETAS STNUT	TE	-A	48	Marson
	Pradnya Rajesh Jadhan	BE	B	57	(P) Joshan
	Gaun Vijay Suryawanshi	BE	B	59	Gost
1	Hale Ayush Veray	10t.	8	\$2	Itale
	Yeuna Bash Jarousash	BE	B	67	tark.
	Kale Ayush Nijay	BE	8	66	Hali
	Shrishti poashant Gairio	17	B	34	Christi
	Manas Patil	TE	B	23	Men
	Varun Extrate	TE	B	49	Aluj 5
	Kaotik Hankare	$\exists \tau$	A	40	禁
	Piyosh Patil	TE	A	15	Both
	Kashish Choole	TE	A	27	angle
	Anxit Sing L	TE	A	41	diogh
	Nishank Shetly	7 €	A	49	Shotets
	Amol runkter sunil grapher	TE	AA	52	garages

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St. No.	Name	Year	D.v.	Roll No.	Signature
1	Suchit D Sapkal	75	B	2.9	8. Sapkal
2.	Kundan D. Yaday	TE	В	32	Pandow
3.	Ned R. Surwade	76	В	14	Valerande
4.	Hinad R. aode	TE	8	25	@.de
5.	Karan R. Raul	TE	В	1.1	Mad
6.	shlok shinde	TE	В	19	Shand
7.	Devest Supposhe	TE	B	15	Muerada
8-	Kund R. Tawate	TE	B	10	No Trust
g	Akshay D. Krade	TE	В	20	Mirk.
10.		TE	B	17	Abeli
[1,	Sairaj & Gasade	TE	B	27	3234'1
12	Pancha Samaudahi	TE	A	26	Fanchell
13.	Aparna Naidu	TE	B	31	S apara.
14	Shorshi Prashoot Gaiken	d) TE	B	34	abrible
15.	Manas Patil	TE	B	23	Mara
16	Parun Ekboite	TE	B	49	ALUE -
17	Pract				
17.	Pranja! Pande	TE	B	24	
12	Shreya Ghule	TE	В	06	Gaile
19	Nibhil Kapsa	TE	A	39	N.F.
20	virroj Shinde	TE	A	12	- Sand
21	Otronshipper S. Deshimukh	TE	A	22	D Sychmoly
-	Sunos A Cholak	TE	A	25	Carry
23	Flores Fislam Shaikh	TE	В	38	chices .
24	Manday Jawalkay	TE	B	28	-64.

Signin



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Si No	Name	Year	Div.	Roll No.	Signature
	Vivel All	BE	B	40	Nach
2	Shive Bure Com	BE	B	30	8.1 Pm
3	Saikiras The	BE	8	12	9-1-
4	Rahul Ankam	TE	B	33	Roll
5	Amas N Yomhalls	FE	A	65	1 1
6	Mohain Ali Khan	FE	A	41	M
7	Robitk. Bhagat	BE	A	25	THE CONTRACT OF THE CONTRACT O
8	Jagourti Malick	BE	B	05	
9	Pranit Bhoir	BE	B	52	The second secon
10	Charo Gupta	BE	A	41	Oguph.
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Sr. no	Name Present/Absent	year	div	roll no	15/2/2 4	16/2/2 4	17/2/2 4	18/2/2 4	19/2/2 4
1	Atharya Sandeep Shind	TE	A	19	Р	P	Р	P	Р
2	Sahil Nardas Mhatre	TE	A	16	P	P	Р	P	P
3	Momin Sohail Altaf Husain	TE	A	30	Р	Р	Р	Р	P
4	Anushree R. Idekar	TE	А	14	Р	A	P	P	Р
5	Prema Sachin Wagh	TE	В	36	Р	Р	Р	A	Р
6	Akanksha Jagtap	TE	Α	46	P	P	P	Р	P
7	Nandani Inde	TE	А	47	P	Р	Р	P	P
8	Chetan Jagtap	TE	А	45	Р	Р	Р	Р	Р
9	Siddharth Parab	TE	А	36	P	Р	Р	Р	P
10	Pradnya Rajesh Jadhav	BE	В	57	Р	P	P	Р	P
11	Gauri Vijay Suryawanshi	BE	В	59	Р	Р	Р	Р	Р
12	Kale Ayush Vijay	BE	В	66	Р	Р	P	P	Р
13	Shrishit Gaikwad	TE	В	34	Р	Р	Р	Р	Р
14	Manas Patil	TE	В	23	P	Р	Р	₽	P
15	Varun Ekbote	TE	А	49	Р	P	Р	Р	Р
16	Kartik Hankare	TE	А	40	Р	P	Р	P	P
17	Piyush Patil	TE	Α	15	Р	Þ	Р	Р	P
18	Kashish Chogle	TE	А	27	Р	Р	Р	Р	Р
19	Ankit Singh	TE	А	41	Р	p	Р	Р	Р
20	Nishank Shetty	TE	А	44	Р	Р	Р	P	Р
21	Amol Guřkhe	TE	Α	52	Р	Р	Р	Р	Р
22	Sunil Gupta	TE	А	51	Р	Р	P·	Р	Р
23	Suchit Sapkal	TE	В	29	Р	Р	P	Р	P
24	Kundan Yaday	TE	В	32	Р	À	Р	Р	P
25	Ved Surwade	TE	В	14	P	Р	Р	Р	P
26	Ninad Gode	TE	В	25	Р	Р	Р	Р	P



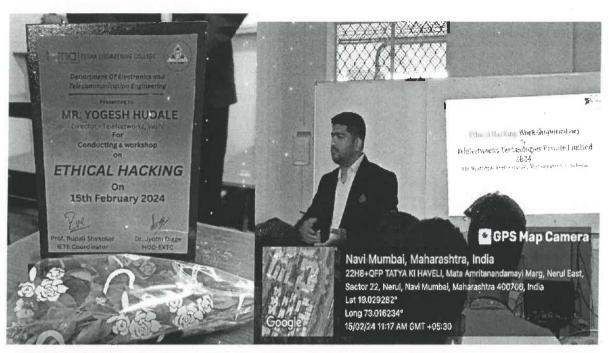


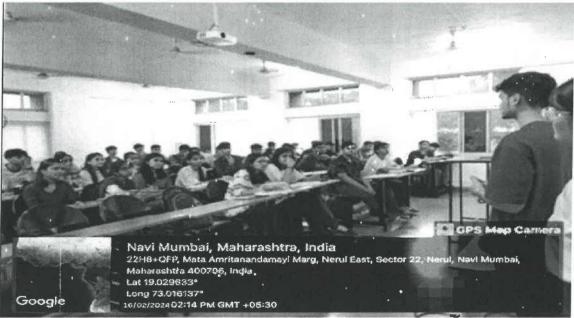
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27	Karan Raul	ΤE	В	11	Р	Р	P	P	Р
28	Shlok Shinde	TE	В	19	P	Р	P	P	P
29	Devesh Surnashe	TE	В	15	Р	P	Р	Р	Р
30	Kunal Tawade	TE	В	10	P	Р	Р	Р	P
31	Akshya Kirde	TE	В	20	Р	Р	Р	Р	P
32	Omkar Bali	TE	В	17	Р	Р	Р	Р	P
33	Sairaj Gawade	TE	В	27	P	Р	Р	Р	P
34	Samruddhi Panchal	TE	А	26	Р	P	P	Р	Р
35	Aprana Naidu	TE	В	49	Р	Р	Р	А	Р
36	Pranjal Pande	TE	В	24	Р	P	Р	Р	Р
37	Shreya Ghule	TE	В	06	Р	Р	Р	Р	P
38	Nikhil Kaspse	TE	А	39	Р	P	P	Р	Р
39	Viraj Shinde	TE	А	12	Р	P	Р	P	P
40	Dhanshree Deshmukh	TE	А	22	P	P	Р	Р	Р
41	Suhas Chalk	TE	A	25	Р	Р	Р	P	Р
42	Anees Shaikh	TE	В	38	Þ	P	Р	Р	P
43	Madar Jawalekar	TE	В	28	P	P	Р	P	P
44	Vivek Ali	BE	В	30	Р	Р	P	P	P
45	Shiv Bura	BE	В	12	Р	Р	P	P	Р
46	Saikiran	BE	В	33	Р	P	P	P	Р
47	Rhauk Ankam	TE	В	65	P	Р	Р	Р	Р
48	Amar Yempalle	FE	A	41	Р	Р	Р	Р	Р
49	Mohsim Khan	FE	A	25	P	P	Р	А	P
50	Rohit Bhagat	BE	В	05	Р	Р	P	Ρ.	Р
51	Pranit Bhoir	BĘ	В	52	Р	Р	Р	Þ	Р
52	Charu Gupta	BE	В	41	Р	Р	Р	Р	P
52	Chard Gupta	DE	Ь	41	Р	P	P	Р	r





9. Screenshot





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TERNA FUCINEEPT OF LEGF
Nems, New Monday - 400 706



9. Feedback , Analysis and Evaluation

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Name: Karan Raul Event: Ethical Hacting Day of Class: TE B Please tick the suitable helds				Date 10	1/02/24
Criterion		Excellent	Good	Average	Pogs
Organization of event by the committee		V		188,84	
Usefulness of the event in your life		V			
Technical depth of the event		V			
knowledge gained from the event		V			
Quality of the equipments used for the event		V			
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ire you interested to attend workshop(Yes/No)			Yes -		
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Nerut, Navi Mumoai - 400 706



IETE Feedback Form

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Criterion	Excellent	Geed	Average	Poor
Organization of event by the committee		V		
Usefulness of the event in your life		1		
Technical depth of the event		1		-
Knowledge gained from the event	N THE LET S	2		
Quality of the equipment used for the event		1		
Attentiveness of volunteers				
Are you interested to attend workshop(yes/no)	4	es		

TETE Feedback Form

Name Shreya G.
Ivent workshop
Line 19/2/24 Class TE VIews tick suitable fields

Criterina	Excellent	Good	Average	Pour
Organization of event by the committee				
discribiness of the event in your life				
fechnical depth of the event				
Knowledge gamed from the event				
Quality of the equipment used for the event		1		
Aucativeness of volumeers				
ive you interested to attend vorkshop(yes/no)	Yes			

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Feedback Analysis:

Criteria	Excellent	Good	Average	Poor
Organization of event by the committee	24	19	4	О
Usefulness of the event in your life 🌼	4	30	12	1
Technical depth of the event	19	15	13	0
Knowledge gained from the event	14	24	8	1
Quality of the equipment used for the event	25	8	10	4
Attentiveness of volunteers	20	27	0	0
Total	106	123	47	6

$$F = (106*4) + (123*3) + (47*2) + (6*1) / 47*6*4$$

F=0.791

Level 3=0.79

Level 2=0.52

Level 1= 0.26

11.Result and Certificates

All 57 students got certificate

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TeleNetworks Technologies Workshop Certification



This is to certify that,

Mr. Nikhil Kapse

has successfully completed a hands-on Ethical Hacking workshop from 2024-02-15 to 2024-02-19 at Terna Engineering College, Nerul, Navi Mumbai - 400 706.

2024-02-22

Yogshidde

TeleNetworks Technologies Workshop Certification



This is to certify that,

Mr. Karan Raul

has successfully completed a hands-on Ethical Hacking workshop from 2024-02-15 to 2024-02-19 at Terna Engineering College, Nerul, Navi Mumbai - 400 706.

2024-02-22

Date

Vaghadale

Yogesh Hudale Director

PRINCIPAL

FURNA ENC MEER

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TeleNetworks Technologies Workshop Certification



This is to certify that,

Mr. Pranit Bhoir

has successfully completed a hands-on Ethical Hacking workshop from 2024-02-15 to 2024-02-19 at Terna Engineering College, Nerul, Navi Mumbai - 400 706.

Yogehalale

2024-02-22

Date

Yogesh Hudale Director

TeleNetworks Technologies Workshop Certification



This is to certify that,

Mr. Rohitkumar Bhagat

has successfully completed a hands-on Ethical Hacking workshop from 2024-02-15 to 2024-02-19 at Terna Engineering College, Nerul, Navi Mumbai - 400 706.

2024-02-22

Date

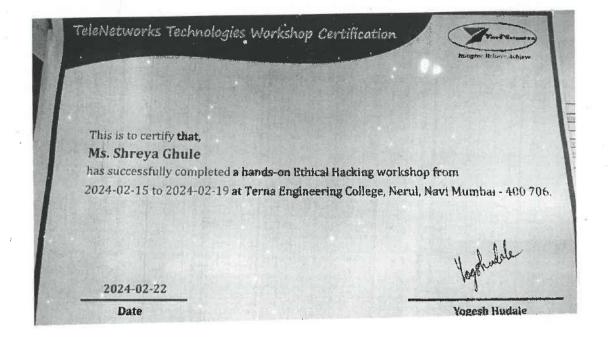
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Yogosh Hudale Director

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Rupali Shekokar

Course Coordinator

A P

Dr. Jyothi Digghe HOD Dept. of EXTC Engg.

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TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Affiliated to University of Mumbal)

Plot No. 12, Sector 22, Opposite Raliway Station, Narul (W), Navi Mumbal- 400706. Ph. +91 22 61115444, Fax No.+91 22 61115400 Web: https://ternaengg.ac.in/

Report on

Value Added Course - Basics of STAAD-Pro

Enrolled Students

T.E. Civil Engineering

Academic Year:

2023-2024

Conducted by

Dept. of Civil Engineering, TEC In Association with

Department of Civil Engineering, Nerul, Navi Mumbai



Bentley Education, USA

Bentley

Nerul, Navi Mumbai - 400.706



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1. Meeting and Approval

SUMMARY OF MINUTES OF THE MESTING

9.6.2023

With reference to meeting held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct Value Added Course to provide knowledge to students regarding for vital subjects of our discipline. The following faculty members were present in the meeting conducted on 9 June 2023 at Civil HOD Cabin to finalize the Value added course to be offered for this year.

The HOD and the staff members concluded the following Add on Course for the academic year 2021-2022

SL. No.	Name of Value Added Course	Semester	Hours	Course Incharge
1.	Value added Course (Basics of Staad- Pro)	V	30	Jamaluddin M.

In the meeting it was decided to prepare syllabus of the program by the staff in charge within a week from the date of meeting.

- I) Dr. Priyanka Salunkhe (HOD)
- 2) Jamaluddin M. (Course Coordinator)
- 3) Pradeep Sonawane (Faculty)
- 4) Dharmesh Gangani (Faculty)

Dr. Priyanka Salunkhe Dept. of Civil Engg.

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TERNA PUBLIC CHARITABLE TRUST'S TERNA ENGINEERING COLLEGE

Date:-09.07.2023

To,

The Principal

Terna Engineering College,

Nerul, Navi Mumbai - 4000706

Subject: - Regarding Permission for conducting Value Added Course Basics of Staad-Pro.

Respected Sir,

Requirement of proficiency in software has become essential for students. In view of this we have decided to conduct an Value Added Course on Basics of Staad-Pro in Association with Bentley Education, USA during the academic year 2023 – 24 for semester-V students. I request you to provide the permission to conduct the same. The selected course will be useful to students for learning basics of structural Analysis which will help students to set their skills and carry final year project using Staad-Pro software. Instructor of this course will be our faculty.

Kindly provide permission to do the same.

Thanking You.

Yours Faithfully.

Prof. Jamaluddin Maghrabi AOC Incharge Dr. Priyanka Salunkhe

HoD

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Plot No. 12, Sector 22, Opposite Railway Station, Nerul(W), Navi Mumbal- 400706. Ph. +91 22 61115444,

Fax No.+91 22 61115400 Web: www.terna.org. e- mail: principal@terna.org

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

1. Title of the course

: Value Added Course (STAAD-Pro)

2. Objective of the course

: To make student learn Staad Pro Software which is required for

analysis and design of structure. This will be beneficial to

student for their final year project.

3. Prerequisite

: Basics of Structural Analysis

4. Beneficiary

: Students and Faculties

5. Date & Duration of the course:.11.07.2023 to 29.10.2023

6. No of hours required

: 30 Hours

7. Internal Resources

: Jamaluddin M./Pradeep S./ Dharmesh G.

8. Internal Assessment

: Assignment

9. Contents of the course

: Enclosed

10. Credits / Certification

: 75% attendance & submission of assignment are eligible for

certification.

11. Venue

: Civil Engineering Computer Lab.

Course Coordinator

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TERNA ENGLISE PLING CO.

2. About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and premium technical institute. It is located at Nerul, Navi Mumbai on a beautiful 3 acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG and 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote centre of IIT Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

2.1 About Department

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to promote the disciplines of Planning, Design, Construction, Operation,

Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly qualified and dedicated faculty are recruited and they are always on their toes to guide the students, form the backbone of the department.

ey Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering,
 Environmental Engineering, Transportation Engineering, Engineering Geology, CAD
 Laboratory, Surveying Laboratory, Hydraulics and Fluid Mechanics Laboratories
- Consultancy Services Offered and Fully Equipped With Major Facilities Like Fully Automatic
 Compression Testing Machine 2000 kN (NABL Accredited), Fully Automatic Universal
 Testing Machine (UTM 1000 kN- NABL Accredited), Fully Automated Total Station for
 Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing
- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas,
 Power Projects



- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures,
 Pavement Design & Analysis, Geotextile Materials for Soil Stabilization, Geotechnical
 Engineering, Remote Sensing & GIS
- Active Mentoring Processes for Continuous Assessment in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- Expert Lectures by Industry Experts
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- Patents, Designs and Copyright Development
- Achieved 100 % placement in AY 2022-23. Many students completed internship during winter vacations (2022) in renowned organizations like, Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), and many more.

3. About Course

An add on course of basic training of STAAD-Pro software has been introduced by the Department of Civil Engineering, Terna Engineering College, Navi Mumbai for S.E.(Civil) students. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 40 hrs.

About Instructors

This course will be conducted by Mr.Jamaluddin Maghrabi along with Mr.Pradeep Sonawane and Mr.Dharmesh Gangani

- Mr.Jamaluddin ,faculty of TEC having 25 years of experience in Civil Structural Design Management of industrial and residential projects. He has handled Projects of high importance for Department of Space ISRO and Department of Atomic Energy BARC for Government of India. He has carried out Analysis and design of RCC and Steel Structures. for many Multidisciplinary EPC and EPCm projects related to Power Projects Chemical/Process Plants, , Oil and Gas and other Industrial Projects
- Mr.Pradeep Sonawane faculty of TEC having 7 years of teaching experience. He having 1 Year
 field experience in building construction work. He has carried out Planning, analysis & Design of
 different residential project work.

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Mr.Dharmesh Gangani faculty of TEC having 6 years of teaching experience. He having 1 Year field experience in building construction work. He has carried out Planning, analysis & Design of different residential project work.

5. Course Scheme

The marking scheme of this course has been decided at the institute and the departmental level.

VALUE ADDED COURSE:-Basics of STAAD-Pro

Contact Hours: - 02 per week (Total 30)

Sem. : - V

6. Syllabus

lopic No.	Contents	Hours
1	Introduction to STAAD-Pro, Silent features, Menu of Preprocessor & Post processor	2
2	Modeling of structures with commands of Staad	2
3	Validation of Software with manual calculation for simply supported beam	4
4	Analysis of Beams with different types of loadings and support with exercises	4
5	Analysis of Plane Frame with different types of loadings and support with exercises	4
6	Analysis of Space Frame with floor loads, with exercises	4
7	Loads and load combinations as per IS codes	2
8	Modeling of G+2 residential building	8
	TOTAL	30

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Course Objective and Course Outcome

After completion of course the student will be able to model, analyse and interpret the results from software

Course Objective

- 1. To provide basic knowledge of different Software in Civil Engineering.
- 2. To validate the software with manual calculations.
- 3. To understand and apply the basic functions of software.
- 4. To understand applications of codes in software.
- 5. To prepare the database and perform its statistical analysis using relevant software.

ourse Outcome

On completion of this course, the students will be able to:

- CO1- To understand the functions involved in various software related to civil engineering field.
- CO2- To understand the various commands of software
- CO3- To analyse the different types of structural members.
- CO4- To understand loads and load combinations to be applied to the structure
- CO5- To Provide hands-on training on analysis, modeling and design of R. C. C. framed structures.

Program Outcome

- PO 1: -Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
 - O 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
- PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO 6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to

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Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8: - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and

norms of the engineering practice.

9: - Individual and team work: Function effectively as an individual, and as a member or leader in

diverse teams, and in multidisciplinary settings.

0 10: - Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11: - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12: - Life-long learning: Recognize the need for, and have the preparation and ability to engage in

independent and life-long learning in the broadest context of technological change.

Program Specific Outcome

PSO 1: - Graduates will be able to plan, analyse, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.

PSO 2: - Graduates will be able to use different software related to Civil Engineering for developing

skills required by the industry.

8. Mapping CO, PO and POS

Practical No.	Name of Experiment	СО	PO	PSC
1	Introduction to STAAD-Pro, Silent features, Menu of Pre-processor & Post processor	1	1,3,5,8,9,12	2
2	Modelling of structures with commands of Staad	2	1,2,3,5,8,9,1	2
3	Validation of Software with manual calculation for simply supported beam	2	1,2,3,5,8,9,1	2
4	Analysis of Beams with different types of loadings and support with exercises	3	1,2,3,5,8,9	2
5	Analysis of Plane Frame with different types of loadings and support with exercises	3	1,2,3,5,8,9	2
6	Analysis of Space Frame with floor loads, with exercises	3	1,2,3,5,8,9	2
7	Loads and load combinations as per IS codes	4	1,2,3,5,8,9	2
8	Modeling of G+2 residential building	5	1,2,3,5,8,9	2



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TPCT'S TERNA ENGINEERING COLLEGE

DEPARTMENT OF CIVIL ENGINEERING

Academic Time Yabia 2023-24V (SH-23)

MARKET .			CLASS:TE	CIVIL) SEN	1; V (R0)				
Day/Time	9:00-10:00	10:00-11:00	11:15-12:15	12:15-1:15		1:45-2:45	2:45-3:45	3:45-4:45	
MON	ADC A2 J: GE A3 D	PCE A1 R-308 TRE A2 RT R-207 AH A3 VK R-04							
TUE		RT R-207 G R-210 PVS R-209	GE A1 DO PCE A2 TRE A3 R	R-308	n R E	АН VK П 211	85H JSM R 211	TRCS PVS R 211	
WED	GE-1 DG R 211	AH VK R 211	AH A1 V TRCS A2 I AOC A3 D	PS R-308		TRES PVS R 203	TRE RT R 203		
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FRI	PCE 8 203	BSR JSM R 211	TRE RT R 211	GE-1 DG R 203		MINI PROJECT			

BATCH A1- ROLL 1 TO 24 BATCH A2- ROLL 25 TO 48 BATCH A3- ROLL 49 TO 74

ABBR	COURSE					
TRCS	THE CRY OF REINFORCED CONCRETE STRUCTURES					
दरन	CECTE CHICHICAL ENGG II					
TRE.	TRANSPORTATION ENGG					
PCE	PROFESSIONAL COMPRINICATION & ETKICS					
AH	APPLIED HYDITAGLICS					
BSA.	BUILDING SERVICES & REPAIRS					
ACC	ADD ON COURSE -STAND PRO					

TEACHER ABBR SOMALI BAYISKAR SB Dr. PRIYAKKA SALLHOOM PYS VAISHALI KISHAN W INVALLIDOTH HACHRAM 1504 AGARCHANO KAWALE AM P5

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10. List of Students:

Sr. no.	Roll No.	Student Name
1	A1	Tambde Kshitij
2	A2	Mhatre Jatin
3	A3	Chikane Atharva
4	A4	Shinde Mayur Baburav
5	A6	Shinde Aaditya
6	A7	Kolte Priyesh
7	A8	Chinarathod Vinod
8	A9	Ghonge Viraj
		A Company of the Comp

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9	A10	Ingle Vivek
10	All	Mhatre Sai
11	A12	Deshmukh Shraddha Satish
12	A13	Bodake Janardan
13	A14	Bhosale Mayur
14	A15	Mumbaikar Vipul
15	A17	Kolekar Mahesh
16	A-19	Mangle Manav
17	A22	Ahirwar Shubham
18	A23	Shinde Neeraj
19	A24	Magar Bhairav
20	A25	Andhare Kaushal
21	A26	Tambe Vedant
22	A28	Gavit Gajendra
23	A29	Kamble Tanmay
24	A30	Lubal Swapneel
25	A32	Karbhari Nikhil
26	A33	Shirsat Shruti
27	A38	Shinde Harsh Santosh
28	A40	Chirlekar Aaryan Anil
29	A41	Mankumbare Soham Mohan
30	A42	Sonawane Khushaal Baban
31	A43	Ambhore Aryan Ashok
32	A44	Khan Mehtab Alam Mukhtar
33	A45	Ghadi Anish Pradeep
34	A46	Patil Kartik Kiran

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37		A49		Palc	Palekar Pranav Anil							
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3	9		A51	Dh	Dhumal Gauri Sanjay							
	40		A52	Jac	ihav Shriya Vivek							
	41		A53	Pa	itil Soham Vinod							
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	45		A57		Dombare Valshnvi Laxman							
	4	6	A58	1	Ranshur Sakshi Raju							
	4	7	A59	Gharat Pranjali Mahendra								
	1	48	A60		Rathod Snehal Shivaji							
		49	A.61	7	Kondikire Mayur Dilip							
		50	A62	2	Yedurkar Sejal Ramdas							
Ĭ.,		51	A63	3	Chorage Akash Akaram							
		52	A6-	4	Chaudhari Atharva Sandeep							
		53	A6	5	Raut Rutuja Tukaram							
		54	A	66	More Vineet Milind							
		55	A	57	Kale Atharva Ambadas							
		56	A	68	Shinde Sahil Sanjay							
1		57		69	Tambe Rohit Baban							
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		59		.71	Gaokar Sanika Dattaram							
		60	1	173	Vikram Masurkar							

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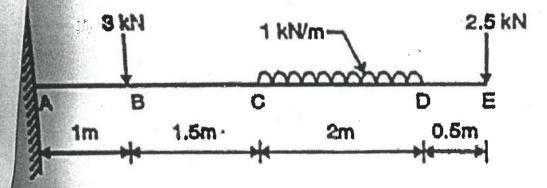
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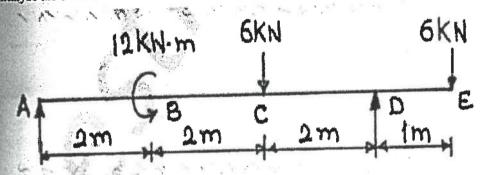
gnments

signment No.1

rse the beam in STAAD-PRO and prepare a report.



2. Analyse the beam in STAAD-PRO and prepare a report.

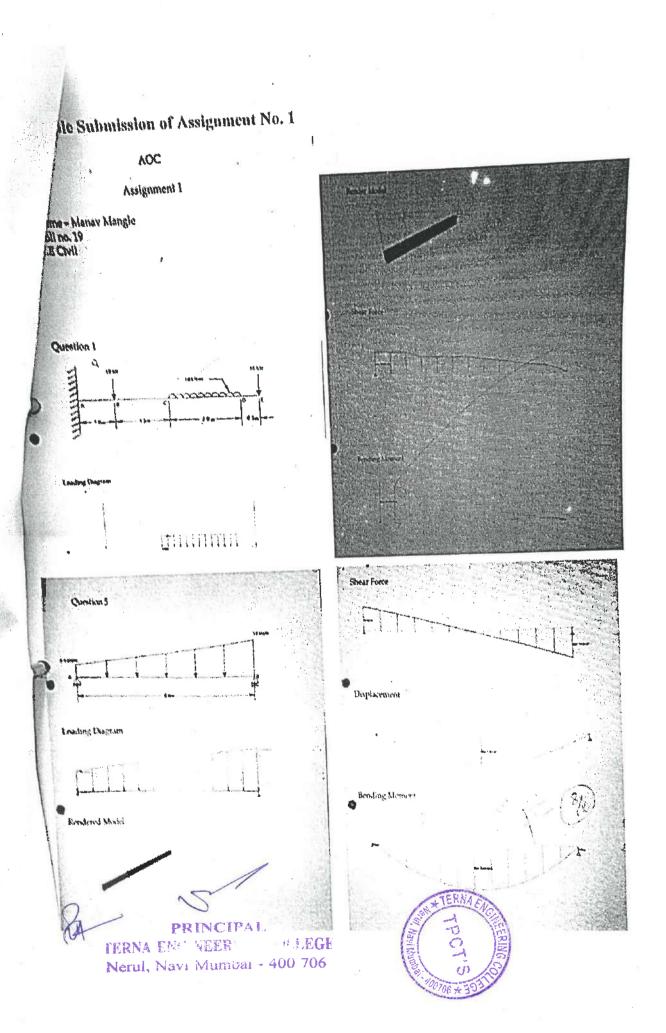


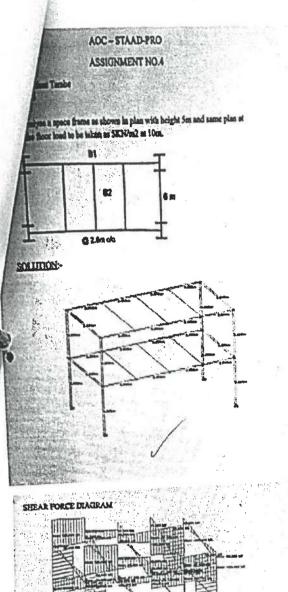
3. A fixed beam having span 6m carries a point load of 40kN at midspan. It also carries udl of 6kN/m over entire pan. Analyse the beam using STAAD-PRO showing SFD,BMD & deflection.

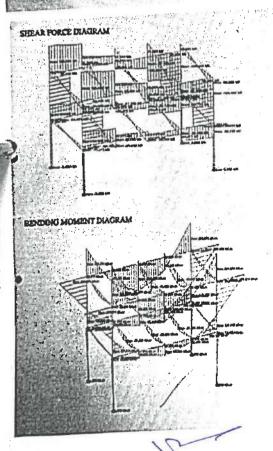
4. A 10m long beam having one end hinged and other roller support carries a clockwise moment of 10kNm at midspan and four point loads of 20 kN each at every 2m. Analyse the beam using STAAD-PRO showing SFD,BMD & deflection.

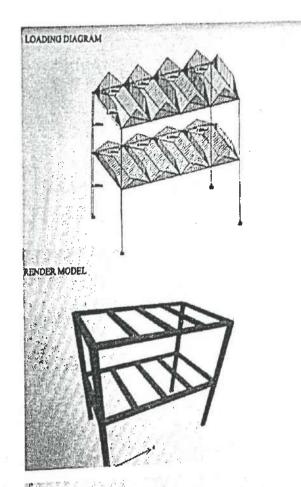
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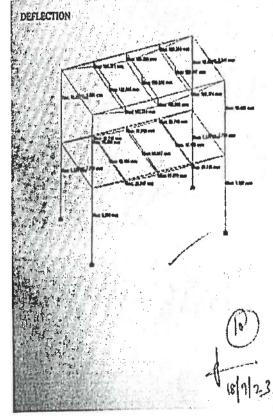
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for Evaluation TW

will be assigned to students each of 10 Marks. Marks will be credited as below.

Sr. No.	Description	Marks		
1.	Modelling	2		
2,	Successful run of Staad file	3		
3.	SFD & BMD with deflected shapes	5		

/ Certification: Those who have 75% attendance are eligible for certification.

esults

0.	Roll No.	Name of Student	Status
).	Al	Tambde Kshitij	Qualified
	A2	Mhatre Jatin	Qualified
3	A3	Children Ashapus	Not Qualified
4	-	Shinde Mayur Baburav	Qualified
5	A4 A6	Shinde Aaditya	Qualified
6	A7	Kolte Priyesh	Not Qualified
7	A8	Chinarathod Vinod	Not Qualified
8	A9	Ghonge Viraj	Qualified
9	A10	Ingle Vivek	Qualified
10	All	Mhatre Sai	Not Qualified
11	Ali	Deshmukh Shraddha Satish	Not Qualified
12	All	Bodake Janardan	Qualified
13	AI	4 Bhosale Mayur	Qualified
13.	4 A1	5 Mumbaikar Vipul	Qualified
1	5 A	17 Kolekar Mahesh	Qualified
į	6 A	19 Mangle Manav	Qualified
	17 A	22 Ahirwar Shubham	Qualified
		23 Shinde Neeraj	Qualified
	9	Magar Shokav	Not Qualified

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	A25	Andi	nare Kaushal	Not Qualified		
	A26	Tam	be Vedant	Qualified		
P	A28	Gav	it Gajendra	Qualified		
	A29	Kar	nble Tanmay	Qualified		
	A30	Lul	pal Swapneel	Qualified		
a le	A32	K	arbhari Nikhil	Qualified		
1	A33	Sł	nirsat Shruti	Qualified		
	A38	S	ninde Harsh Santosh	Not Qualified		
	A40	C	Chirlekar Aaryan Anil	Qualified		
	A41	N	Mankumbare Soham Mohan	Qualified		
	A42	8	Sonawane Khushaal Baban	Not Qualified		
	A43		Ambhore Aryan Ashok	Qualified		
-	A44		Khan Mehtab Alam Mukhtar	Not Qualified		
	A45	5	Ghadi Anish Pradeep	Qualified		
1	A46	6	Patil Kartik Kiran	Not Qualified		
5	A4'	7	Keni Vaibhavee Subodh	Qualified		
6	A4	8	Bowlekar Shailesh Shekhar	Not Qualified		
7	A4	9	Palekar Pranav Anil	Not Qualified		
8	A5	50	Lad Amey Mahadev	Qualified		
39	AS	51	Dhumal Gauri Sanjay	Qualified		
40	A:	52	Jadhav Shriya Vivek	Qualified		
41	A	53	Patil Soham Vinod	Qualified		
42	A	.54	Bhujbal Aryan Chandrakant	Qualified		
43	3 A5		Singh Ayush Jitendra	Qualified		
44	4 A50		Ghangale Anamay Uttam	Qualified		
45	A	457	Dombare Vaishnyi Laxman	Qualified		
46	1	458	Ranshur Sakshi Raju	Qualified		
47	/	A59	Gharat Pranjali Mahendra	Not Qualified		
48		A60	Rathod Snehal Shivali	Qualified		



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A61	Kondikire Mayur Dilip	Qualified			
A62	Yedurkar Sejal Ramdas	Qualified			
A63	Chorage Akash Akaram	Qualified			
A64	Chaudhari Atharva Sandeep	Qualified			
A65	Raut Rutuja Tukaram	Qualified Qualified			
A66	More Vineet Milind				
A67	Kale Atharva Ambadas	Qualified Qualified Qualified			
A68					
A69	- All Diles				
A7	The Landson	Not Qualified			
A'	Gaokar Sanika Dattaram	Qualified			
-	73 Vikram Masurkar	Not Qualified			

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ON COURSE (Basics of Staad-Pro) SH-23

his fee enforcing feedback for the skill based training program eneducted by the Civil Engineering and from July 23 to October 23. Students should give a genuine feedback

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Total management total

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30 you test STAAD Fro ADD ON COURSE was beneficial for you? *

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HOW WAS the curriculum of the STAAD Pio AOC program? Did it cover sufficient usage of the

EXCELLENT

WEIG GOOD

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N 4.10

MERCH

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Pro curriculum completed as planned? me STAAD pro course was helpful for understanding structural Engineering. YES NO were your queries resolved C YES C. NO Were you able to practice along with the instructor? * YES CN C How would you rate the course content in terms of being easy to follow?* EXCELLENT VERY GOOD GOOD TERNA ENCINEER COLLEGE

Nerul, Navi Mumbai - 400 706

rate the trainer for the STAAD Pro course?*

200

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was your overall experience with the add on course (Basics of STAAD Pro)?*

XCELLENT

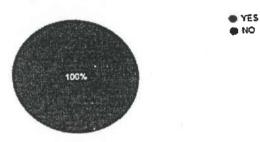
VERY GOOD

GOOD

FAIR

) POOR

)o you feel STAAD Pro ADD ON COURSE was beneficial for you?

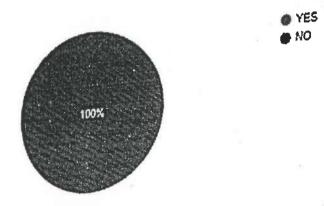


How was the curriculum of the STAAD Pro AOC program? Did it cover sufficient usage of the software

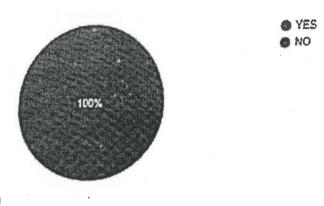




s the STAAD Pro curriculum completed as planned?



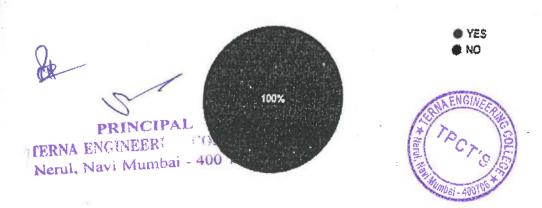
Did the STAAD pro course was helpful for understanding structural Engineering



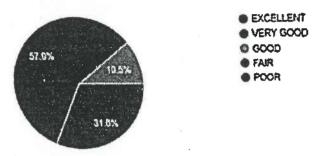
Were your queries resolved



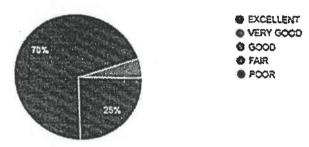
Were you able to practice along with the instructor?



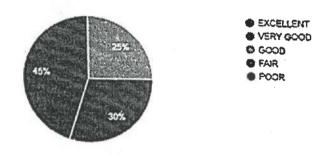
you rate the course content in terms of being easy to follow?



ould you rate the trainer for the STAAD Pro course?



as your overall experience with the add on course (Basics of STAAD Pro)?



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TERNA ENGINEERING COLLEGE

DEPARTMENT OF CIVIL ENGINEERING

CERTHICATE

This is to certify that Mr. /Ms. RANSHUR SAKSHI RAJU

Student of second year has satisfactory completed Value Added Course on Basics of STAAD Pro in semester -V during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.

Course In charge

Principal

Bentley



TERNA ENGINEERING COLLEGE

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that Mr. /Ms. MANGLE MANAY

Student of second year has satisfactory completed Value Added Course on Basics of STAAD Pro in semester -V during academic year 2023-24 in association with Bentley, This certificate has been issued to him/her after qualifying the exam.

Course In charge

do

HOD

Principal

Benitey

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CERTIFICATE

This is to certify that Mr. /Ms. KAMBLE TANKAY

Student of second year has satisfactory completed Value Added Course on Basics of STAAD Pro in semester -V during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.

Course In charge

Principal

Bentley



ENGINEERING COLLEGE

DEPARTMENT OF CIVIL ENGINEERING

CERTHICATE

This is to certify that Mr. /Ms. RATHOD SWELLAL.

Student of second year has satisfactory completed Value Added Course on Basics of STAAD Pro in semester -V during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.

Course In charge

45

HOD

S Bentley

Mamoai - 400 706

rof, Jamaluddin Maghrabi

Course in charge



Dr. Priyanka Salunkhe

HoD

TERNA ENGINEERING COLLEGE, NERUL

Department of Civil Engineering

Report on

Value Added Course - Water Gems and Primavera

Enrolled Students B.E. Civil Engineering (Sem-VII)

Academic Year:

2023-2024

Organized by

Department of Civil Engineering, Nerul, Navi Mumbai

&

Bentley Education, USA

8 Sentley

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Part I

Water Gems





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	CO,PO & PSO Mapping	11
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	0 List of students	13
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	15 Feedback	22
0	16 Certificates	2.

1. Meeting and Approval 1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

3.7.2023

With reference to meetings held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct an Add on Course to provide knowledge to an Add on Course to provide knowledge to students regarding vital subjects of our discipline. The following faculty members were present in the were present in the meeting conducted on 3 July 2023 at Civil HOD Cabin to finalize the Value added course to be 2000. added course to be offered for this year.

The HOD and the staff members concluded the following Add on Course for the academic year 2023-2024

T.	NT CX7.1 4.11.1.C	Semester	Hours	Staff Incharge
L.	Name of Value Added Course	Octilogram		
lo.			30	Ritesh Tandekar,
1	Add on Course (Water Gems and	VII	30	Sonali Baviskar. &
	Primavera)		1	Poonam Patil

In the meeting it was decided to prepare the syllabus of the program by the staff in charge within a week from the date of meeting.

- 1) Dr. Priyanka Salunkhe (HOD)
- 2) Jamaluddin M. (IQAC Incharge)
- 3) Ritesh Tandekar (Water Gems Course Coordinator)
- 4) Sonali Baviskar (Water Gems Course Coordinator)
- 5) Poonam Patil (Primavera Course Coordinator)

Dr. Priyarka Salunkhe HoD Dept. of Civil Engg.

TERNA ENGINEER MARGE Nerul, Navi Mumbai - 400 706



TERNA PHOBLIC CHARITABLE TRUST'S TERNA ENGINEERING COLLEGE

Date:-09.07.2023

To.

The Principal

Tema Engineering College,

Nerul, Navi Mumbai - 4000706

Subject: - Regarding Permission for conducting Value Added Course Basics on Water Gerns & Primavera.

Respected Sir,

Requirement of proficiency in software has become essential for students. In view of this we have decided to conduct a Value Added Course on Water Gems & Primavera in Association with Bentley Education, USA during the academic year 2023 – 24 for semester-VI students. I request you to provide the permission to conduct the same. The selected course will be useful to students for learning water supply and drainage system & Project planning and management. Instructor of this course will be our faculty.

Kindly provide permission to do the same.

Thanking You.

Yours Faithfully.

Prof. Jamaluddin Maghrabi AOC Incharge Dr. Priyanka Salunkhe ...

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TERNA ENGINEERING COLLEGE, NERUL

Department of Civil Engineering

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

1. Title of the course

: Add on Course (Water Gems)

2. Objective of the course

: To make student learn Water Gems

which is required for analysis and dosign of water pipeline. This will be beneficial to student for

3. Prerequisite

their final year project. : Basics of Water Supply Scheme

4. Beneficiary

; Students and Faculties

5. Date & Duration of the course:. Throughout the Semester

6. No of hours required

: 15 Hours

7. Internal Resources

: Ritesh Tandekar

Internal Assessment

: Assignment

9. Contents of the course

: Enclosed

10. Credits / Certification

: 75% attendance and scored above

50% in Practical Exam eligible for certification.

: Offline

11.Venue

Prof. Ritesh Tandekar

Course Coordinator

Dr. Priyanka Salunkhe

Hop Dept. of Civil Engg



2. About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and premium technical institutions Could be a Engineering College is one of the well-known and premium technical institutions, Quality Management System and is among the top Colleges in Mumbai. It is located at Nerul, Navi Mumbai. at Nerul, Navi Mumbai on a beautiful 3 acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG and 3 PhD UG, 4 PG and 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional off. of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote center of HT

Bombay which a management of the Products and Innovation Center (EPIC), Remote center of HT

through video Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing Total electronics conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs). SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse total. diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

2.1 About Department

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to promote the disciplines of Planning, Design, Construction, Operation,

Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly qualified and dedicated faculty are recruited and they are always on their toes to guide the students, forming the backbone of the department.

Key Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Engineering Geology, CAD Laboratory, Surveying Laboratory, Hydraulics and Fluid Mechanics Laboratories
- Consultancy Services Offered and Fully Equipped With Major Facilities Like Fully Automatic Compression Testing Machine 2000 Kn (NABL Accredited), Fully Automatic Universal Testing Machine (UTM 100 Ton- NABL Accredited), Fully Automated Total Station for Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing
- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas, Power **Projects**

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- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures, Pavement Design & Analysis, Géntextile Materials for Soil Stabilization, Geotechnical Engineering, Remote Sensing & GIS
- Active Mentoring Processes for Continuous Assessment in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- **Expert Lectures by Industry Experts**
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- Patents, Designs and Copyright Development
- Achieved 100 % students intern during winter vacations (2019-2020) in renowned organizations like Airport Authority of India (AAI), Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), Rashtriya Chemical Fertilizers (RCF), American Concrete Institute and so many.

3. About Course

An add-on course of basic training of Water Gems software has been introduced by the Department of Civil Engineering, Terna Engineering College, Navi Mumbai for B.E.(Civil) students. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 10 hrs.

4. About Instructor

This course will be conducted by Prof. Ritesh Tandekar a faculty of TEC having 5 years teaching experience and Master in Environment Engineering and Prof Sonali Baviskar a faculty of TEC having 12 years teaching experience and Master in Environment Engineering, also pursuing Phd from HTB.

5. Course Scheme

The marking scheme of this course has been decided at the institute and the departmental level.

ADD ON COURSE:-Water Gems

Contact Hours: - 01 per week (Total 15)

Sem. :- VII

TOTAL PR TW 20 30

COLLEGE TERNA ENGINEERT Nerul, Navi Mumbai - 400 706

6. Syllabus

Topic No.	Contents	Hours		
1	Introduction and Software Installation	1		
2	Basic Tools of Water Gems			
3	Pipeline System	2		
4	Town Planning on WaterGems AutoCAD	3		
5	Design of Water Distribution System For Town	3		
6	Design of Water Distribution System For Private and Public	5		
	Building	15		

7. Course Objective and Course Outcome

After completion of course the student will be design water distribution network for a town

Course Objective

- 1. To provide basic knowledge of WaterGems Software in Civil Engineering.
- 2. To validate the software with Pipeline Design.
- 3. To understand and apply the basic functions of software.
- 4. To understand applications of water distribution systems.

Course Outcome

On completion of this course, the students will be able to:

CO1- To understand the functions involved in various software related to the civil engineering field.

CO2- To understand the various commands of software

CO3- To design the pipeline network for building.

CO4-To design the water distribution system for town.

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Program Outcome

- PO 1: -Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals,
- and an engineering specialization to the solution of complex engineering problems. Po 2: - Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
- PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the
- information to provide valid conclusions. PO 5: - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities
- with an understanding of the limitations. PO 6: - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9: Individual and team work: Function effectively as an individual, and as a member or leader in
- PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive
- PO 11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcome

- PSO 1: Graduates will be able to plan, analyse, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.
- PSO 2: Graduates will be able to use different software related to Civil Engineering for developing skills required by the industry.

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8. Mapping CO, PO and POS

pping CO, i C	Name of Experiment	co	ро	pso
Practical No.		-		2
1	Introduction and Software	1 1	1,3,5,8,9,12	1-2
	Installation	1,2	1,2,3,5,8,9,1	2
2	Basic Tools of Water Gems	1, 2	1,2,3,5,8,9,1	1 2
3	Pipeline System	3	2	1 2
3	Town Planning on WaterGems	1,3	1,2,3,5,8,9	
4	AutoCAD	1,10		1 2
5	Design of Water Distribution	3,4	1,2,3,5.8,5	
	System For Town		1,2,3,5,8,	1
6 .	Design of Water Distribution System For Private and Public	3,4	1,2,3,5,6,	

9. Schedule

		191	DEPART	VA ENGINEERI MENT OF CIVIL ENG Time Table 2023-26	WEEKING			
		5.53		RITESH TANDEK	AR	1:45-1:45	2:45-3:45	3:45-4:45
Day/Time	9:00-10:00	10:00-11:00	11:15-12:15	12:15-1:15	1:15-1:45	TREA		
MON	SWM RT		TREAT R 211				207	
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10. List of Students:

r. No.	Student Name	Sr. No.	Student Name
1	GHOLAP VAIRHAV LAUU	39	PATHAK AMAN RAYINDRA
2	BHOIR SANIKA SADANAND	40	LOKE NIMISH GANGARAM
3	GAWADE SAURABH KAILAS	41	SHELKE ROTHT SHRIMANT
4	SHAHASANE ADITYA PRAVIN	42	KADAM RIBTIK PRAVIN
5	WALANI PRATIK SANTOSH	43	GONDKE KOMAL SHASHIKANT
6	MUKHERJEE PRANJAL PARIJAT M	44	KHARAT TANISHQ SUDHAKAR KHARAT
7	KILLEDAR ANURUP ANIL	45	KHANDEKAR MANSI DILIP
8	MHATRE SHARV SANTOSH	46	PATIL TANISISQ SOMNATH
9	KHEDKAR PRANAV PRAVIN	47	HOTKAR AKSHATA JAYSING
10	PATIL SAHIL RAVINDRA	48	MAHADIK SAHIL RAJESH
11	VINOY VISMAY LUKOSE	49	SINGH SAHIL DEEPRAJ
. 12	WAGHMARE NILESH BABURAO	50	PATEL PALASH DIPEN
13	MOHITE RUSHIKESH JALINDER	51	DONGRE HRISHIKESH
14	MALI SRUSHTI SHIVAJI	52	DUDUKA BRIJESH
15	SURYAWANSHI TEJAS DILIP	53	JADIIAV ADITYA
16	PATIL SUMIT DINESH	54	LAWANE KESHAR
17	BHUSARA DIGVIJAY DASHRATH	55	BEDEKAR ROHIT
18	GAWALI PRATHAMESH PRADEEP	56	PAWAR SAHIL
19	CHAUDHARI HASMITA GANGA	- 57	WAYAL SAHIL
20	BHUSARA ANJALI SUNIL	58	PARAB ROHAN
21	BHOSALE YASH SANJAY	59	SAWANT KRUTIKA
22	KOPPULA ASHOK SATISH	60	POMENDKAR SHIVANI
23	AMBRE ANURAG SANIAY	61	NAGOTHANEKAR ABHAY
24	CHOUGULE PARTH VINOD	62	THIKDE MILIND
25	RAIPUT UDAYRAISING JASWANTSING	63	DUBEY SATYAJEET
26	GHAWARE SAMBODH SHRIKANT	64	SIDDAMAL KARTIK
27	DABHADE VIJAY SANJAY	65	MALVANI YOGESH
28	PRASAD SHUBHAM SURESHKUMAR	66	PAWAR TEJASHREE
29	KEDARI ADITYA MANGESH	67	GAIKAR KAJAL
		68	GHARAT SIDDHI
30	CHAVAN AISHWARYA FATTESING	69	PHADTARE SHUBHANG!
31	MANE SAKSHI RAJU	70	PANPALIYA KAUSTUBH
32	KOLI SAGARIKA NITIN	71	CHAVAN SHWETA
33	BADGUJAR KALPESH RAJENDRA	72	MATEKAR ROHIT
34	CHAKOR SHUBHAM RAMKRUSHN	73	GAIKWAD PRATIK
35	PATIL DHANSHREE VIKAS PATIL	74	TADVISHOAIB
36	DHANSAY ZAID ZAFARULLAH	75	JADHAV SAKSHI
37	MHATRE SAHIL ANANTA	76	
38	SINGH ANKIT RAJ ASHOK	77	

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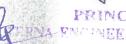
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11. Attendance

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12. Assignments

12.1 Assignment No.1

Draw the basic pipeline system with the help of all basic tools of WaterClems

12.2 Sample Submission of Assignment No. 1

12.3 Assignment No. 2

Design the water Distribution System for Town

12.4 Sample Submission of Assignment No. 2

ASSIGNMENT:

ASSIGNMENT:

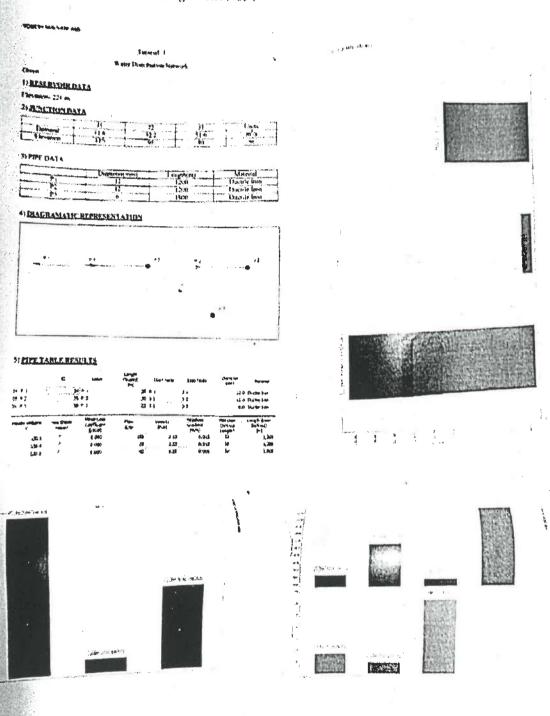
YUGENH MA VANI
AGS

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12.5 Tutorial

Design the water Distribution System for Privet or Public Building.

12.6 Sample Submission of Assignment No. 4







13. Rubrics for Evaluation TW

Assignments 30 marks

10 marks for each assignment is divided under following heads

	Head	Marks
1	Report	:4
2	On time submission	: 3
3	Viva	: 3

Attendance

	Head
1	91% onwards
2	81%-90%
3	75%-80%

Credits / Certification: Those who have 75% attendance and scored above 50% in practical are eligible for certification.

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North Navi Mumbai - 400 706

Evaluation of TW & PR

Term work was assessed based on Assignment submission as per Rubrics mentioned above. Practical examination was carried out based on the types of Assignment questions. The marks obtained by students in TW & PR are as follows

Sr. N	Student Name	TW	. Pit	Total	
		30	20		
	GROLAP VAIBHAV LAHU	12	14	26	
2	BHOIR SANIKA SADANAND	13	14	27	
3	GAWADE SAURABH KAILAS	12	14	26	
5	SHAHASANE ADITYA PRAVIN	12 13 27 14	15	27	
6	WALANJ PRATIK SANTOSH		13	26 46 29	
7	MUKHERJEE PRANJAL PARIJAT M		19		
8	KILLEDAR ANURUP ANIL		15		
9	MHATRE SHARV SANTOSH	15	15	30	
	KHEDKAR PRANAV PRAVIN	27	18	45	
10	PATIL SAHIL RAVINDRA	12	12	24	
11	VINOY VISMAY LUKOSE	28	18	46	
12	WAGHMARE NILESH BABURAO	27	18	45	
13	MOHITE RUSHIKESH JALINDER	14	14	28	
14	MALI SRUSHTI SHIVAJI	13	14	27	
15	SURYAWANSHI TEJAS DILIP	12	12	24	
16	PATIL SUMIT DINESH	12	12	24	
17	BHUSARA DIGVIJAY DASHRATH	28	18	46	
18	GAWALI PRATHAMESH PRADEEP	0	0	0	
19	CHAUDHARI HASMITA GANGA	26	17	43	
20	BHUSARA ANJALI SUNIL	13	15	28	
21	BHOSALE YASH SANJAY	0	0	0	
22	KOPPULA ASHOK SATISH	12	14	26	
23	AMBRE ANURAG SANJAY	13	13	26	
24	CHOUGULE PARTH VINOD	12	12	24	
25	RAJPUT UDAYRAJSING JASWANTSING	0	0	0	
26	GHAWARE SAMBODH SHRIKANT	0	0	0	
	DABHADE VIJAY SANJAY	21	11	32	
27	PRASAD SHUBHAM SURESHKUMAR	. 29	12	41	
28	KEDARI ADITYA MANGESH	25	12	37	
29	CHAVAN AISHWARYA FATTESING	28	12.	40	
30		28	12	40	
31	THE PARTY A MITTER		12	41	
32	KOLI SAGARIKA NITIN	29		34	
33	BADGUJAR KALPESH RAJENDRA	19	15	27	
34	CHAKOR SHUBHAM RAMKRUSHN	12	15	-	
35	PATIL DHANSHREE VIKAS PATIL	14	12	26	
36	DHANSAY ZAID ZAI ARULLAH	19	10	29	

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37	MHATRE SAHIL ANANTA SINGH ANKIT RAJ ASHOK	12	10	40	Complete State of Sta	
38	PATHAK AMAN RAVINDRA	28	1.2	24		
39	LOKE NIMISH GANGARAM	14	10	35		
40	SHELKE ROHIT SHRIMANT	25	10	10		
41	KADAM RHITIK PRAVIN	0	0	41		
42	GONDKE KOMAL SHASHIKANT	29	12	29		
43	KHARAT TANISHQ SUUHAKAR KHARAT	21	8	137		
44	KHANDEKAR MANSI DILIP	25	12	21		
45	PATIL TANISHQ SOMNATH	12	9	30		
46	HOTKAR AKSHATA JAYSING	21	9	28		
47	MAHADIK SAHIL RAJESH	12	14	26	3	
48	SINGH SAHIL DEEPRAJ	12	14	4	4	
49	PATEL PALASH DIPEN	29	15	4	7	
50	DONGRE HRISHIKESH	29	18	4	2	
51	DUDUKA BRIJESH	25	17	- 3	16	
52	JADHAV ADITYA	21	15	1:	33	
53	LAWANE KESHAR	19	14	-	49	
54		29	20	-	26 48	
55	BEDEKAR ROHIT	13	13			
56	PAWAR SAHIL	29	19	-	49	
57	WAYAL SAHIL	29	21	-	49 .	
58	PARAB ROHAN	29	20		35	
59	SAWANT KRUTIKA	18	17		24	
60	POMENDKAR SHIVANI	12	12		0	
61	NAGOTHANEKAR ABHAY	0	0		24	
62	THIKDE MILIND	12	12			
63	DUBEY SATYAJEET	24	19		43	
	SIDDAMAL KARTIK	28	20		48	
64	MALVANI YOGESH	28	19		47	
65	PAWAR TEJASHREE		19		43	
66		24	18		39	
67	GAIKAR KAJAL	21	19		47	
68	GHARAT SIDDHI	28	- 0		0	
69	PHADTARE SHUBHANGI	0			48	
70	PANPALIYA KAUSTUBH	28	2		45	
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73	TADVI SHOAIB	15		18	33	
. 74	JADHAV SAKSHI			12	24	
75	KASABE DHANAJAY	12		12	24	
76	WANI JUNAID	12	RHAENO			

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\$	THEY AF VARRIAN LASTS	chalified
7	RHUR SANKA SADANADD	eprolified
3	WAMARY SAURADHRAILAS	Christified
4	SHAHASANE ADITYA FRAVIR	Qualifiert
*	WALAM PPATIK SANTOSH	Qualified
81	MERHEBIEF PRAVIAL PARITAL M	Qualified
7	KHI FOAR ANDRUD AND	Qualifier
*	MHATRE SHARY SANTOSH	Qualifieri
9	KHEDKAR PRANAV PRAVIN	Qualified
10	PATTI. SAIIIL RAVINDRA	Not-Qualified
11	VINOY VISMAY LUKOSE	Qualified
12	WAGHMARE NILESH BABURAO	Qualified
13	MOHITE RUSHIKESH JALINDER	Qualified
14	MALI SRUSHTI SHIVAJI	Qualified
15	SURYAWANSHI TEJAS DILIP	Not-Qualified
16	PATIL SUMIT DINESH	Not-Qualified
17	BHUSARA DIGVIJAY DASHRATH	Qualified
18	GAWALI PRATHAMESH PRADEEP	Net-Qualified
19	CHAUDHARI HASMITA GANGA	Qualified
20	BHUSARA ANJALI SUNIL	Qualified
21	BHOSALE YASII SANIAY	Not-Qualified
22	KOPPULA ASHOK SATISH	Qualifled
23	AMBRE ANURAG SANJAY	Qualified
24	CHOUGULE PARTH VINOD	Not-Qualified
25	RAJPUT UDAYRAJSING JASWANTSING	Not-Qualified
26	GHAWARE SAMBODH SHRIKANT	Not-Qualified
27	DABHADE VIJAY SANJAY	Qualified
28	PRASAD SHUBHAM SURESHKUMAR	Qualifled
29	KEDARI ADITYA MANGESH	Qualified
	CHAVAN AISHWARYA FATTESING	Qualified
30	MANE SAKSHI RAJU	Qualified
31		Qualified
32	KOLI SAGARIKA NITIN	Qualified
33	BADGUJAR KALPESH RAJENDRA	
34	CHAKOR SHUBHAM RAMKRUSHN	Qualified
35	PATIL DHANSHREE VIKAS PATIL	Qualifled
36	DHANSAY ZAID ZAFARULLAII	Qualified
37	MHATRE SAHIL ANANTA	Qualifled
	SINGH ANKIT RAJ ASHOK	Not-Qualified
38	PATHAK AMAN KAYINDRA	Qualified
39	LOKE NIMISH GANGARAM	Not-Qualified
40		Qualified
41	SHELKE ROHIT SHRIMANT	Countie

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42	KADAM RHITIK PRAVIN	Not-Qualified
43	GONDKE KOMAL SHASHIKANT	Qualified
44	KHARAT TANISIIQ SUDIJAKAR KHARAT	Qualified
45	KHANDEKAR MANSI DILIP	Qualified
46	PATIL TANISHQ SOMNATH	Not-Qualified
47	HOTKAR AKSHATA JAYSING	Qualified
48	MAHADIK SAHIL RAJESH	Qualified
49	SINGH SAHIL DEEPRAJ	Qualified
50	PATEL PALASH DIPEN	Qualified
51	DONGRE HRISHIKESH	Qualified
52	DUDUKA BRIJESH	Qualified
53	JADHAV ADITYA	Qualified
54	LAWANE KESHAR	Qualifled
55	BEDEKAR ROHIT	Qualified
56	PAWAR SAHIL	Qualified
57	WAYALSAHIL	Qualified
58	PARAB ROHAN	Qualified
59	SAWANT KRUTIKA	Qualified
60	POMENDKAR SHIVANI	Qualifled
61	NAGOTHANEKAR ABHAY	Not-Qualified
62	THIKDE MILIND	Not-Qualified
63	DUBEY SATYAJEET	Not-Qualified
64	SIDDAMAL KARTIK	Qualifled
65	MALVANI YOGESH	Qualifled
66	PAWAR TEJASHREE	Qualified
67	GAIKAR KAJAL	Qualifled
68	GHARAT SIDDHI	Qualified
69	PHADTARE SHUBHANGI	Qualifled
70	PANPALIYA KAUSTUBH	Not-Qualified
71	CHAVAN SHWETA	Qualified
72	MATEKAR ROHIT	Qualified
73	GAIKWAD PRATIK	Not-Qualified
74	TADVI SHOAIB	Not-Qualified
75	JADHAV SAKSHI	Qualified
76	KASABE DHANAJAY	Not-Qualified
77	WANI JUNAID	Not-Qualified

PRINCIPAL
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15. Feedback

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ADD ON COURSE-I (Water Gems) SH-23

This form is far collecting feedback for the skill bound training program conducted by the Cavil Engineering Department form July 23 to October 23. Students should give a gardine feedback.

- Email ID
- Name of Student
- Class Roll NO. *
- To Number *
- Batch *

Mark only one oval.

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ADD YOU feel Water Gerns ADD ON COURSE was beneficial for you? *

Affairk only one oval.

YES

... NO

7. How was the curriculum of the Water Gerns AOC program? Did it cover sufficient usage of the software?

Mark only one oval.

EXCELLENT

VERY GOOD

GOOD

FAIR

POOR

8. Was the Water Gems curriculum completed as planned? *

Mark only one oval.

YES

9. Did the Water Gems course was helpful for understanding construction engineering and management?

Mark only one oval.

YES

ON C

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/19/23,	1:09 PM	· ·
	10.	Mark only one oval. YES ADD ON COURSE + (Water Gams) SH-23
	11,	Were you able to practice along with the instructor? Mark only one oval. YES
	12.	How would you rate the course content in terms of being easy to follow?
		Mark only one oval. EXCELLENT VERY GOOD GOOD FAIR POOR
	13.	** *** *** *** *** *** *** *** *** ***
		Mark only one oval.

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Nerul, Navi Muridai - 400 706

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14. How was your overall experience with the add on course (Water Germs)?

Mark only one oval.

- EXCELLENT
- VERY GOOD
- GOOD
- FAIR
- POOR
- 15. Do you have any suggestion or feedback for us?

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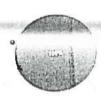
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Nerul, Navi Mumbai - 400 725





Dis your feet Water Germa AGO OFI COUNTY, was used a fine a state with



the curiculum of the Water Gerns AOC program? Did it cover sufficient



- EXCELLENT VERY GOOD GOOD FAIR -• FOOR

Was the Water Gerns curriculum completed as $\mathcal{O}(\mathfrak{gon}^{\mathrm{def}})$ 44 (4500) 565



Did the Water Gems course was helpful for understanding construction engineering and management?

41 105000549



Were your queries resolved 44 (9100014)



Were you able to practice along with the instructor? 44 responses

How would you rate the course content in terms of being easy to follow?

44 responses



4 YES



TERNA ENGINEER COLLEGE Nerul, Navi Mumbai - 400 706

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Flow would you rate the trainer for the Water Germa Course?



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16. Certificates

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PERNA ENGINEERING COLLEGE
DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that Mr. /Ms. ROHIT BEDEKAR

student of second year has satisfactory completed Value Added Course in Water Gems during the entire semester -VII during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.

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This is the recide that Mr. Als. KRUTIKA SAWANT

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This is to certify that Mr. /Ms. YOGESH MALWANI

student of second year has satisfactory completed Value Added Course in Water Gems during the entire sentester -VII throng academic year 2023-24 in assurantion with Bentley. This certificate has been usued to hundrer after qualifying the exam-

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This is to corride that Mr. Ms. VIJAY DABADE

student of second year has satisfactory completed Value Added Course in Water Gents during the entire semester. VII during academic year 2023-24 in association with Bentley. This certificate has been issued to hindler after qualifying the group

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Dr. Priyanka Salunkhe

HOD, Dept. of Civil Engineering

Prof. Kitesh Tandekar

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Ownould you rate the trainer for the STAAD Pro course?*

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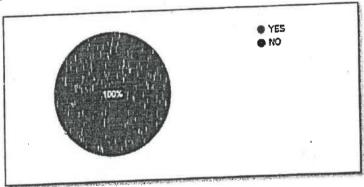
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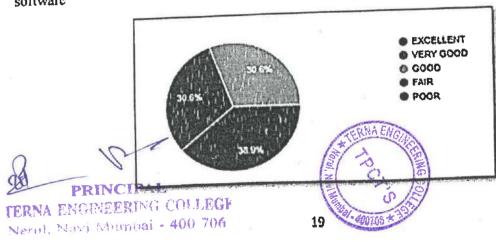
How was your overall experience with the add on course (Basics of STAAD Pro)?

- O EXCELLENT
- O VERY GOOD
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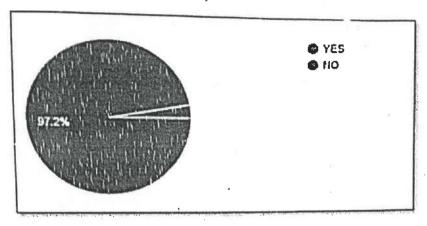
Do you feel STAAD Pro ADD ON COURSE was beneficial for you?



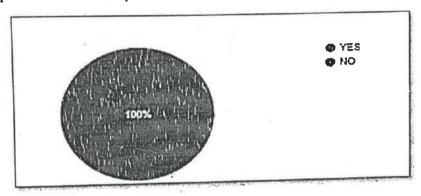
How was the curficulum of the STAAD Pro AOC program? Did it cover sufficient usage of the software



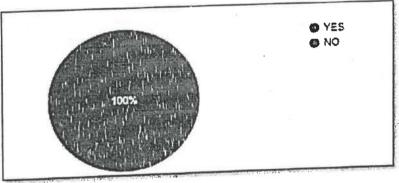
as the STAAD Pro curriculum completed as planned?



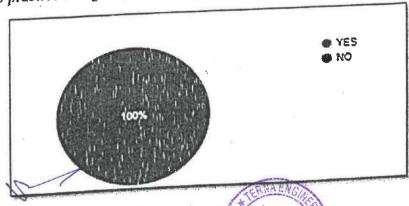
Did the STAAD pro course was helpful for understanding structural Engineering



Were your queries resolved



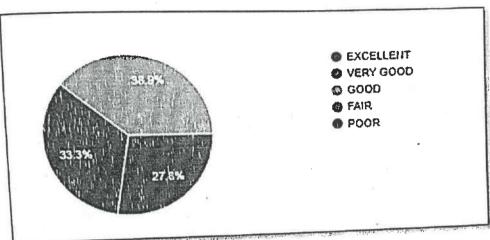
Were you able to practice along with the instructor?



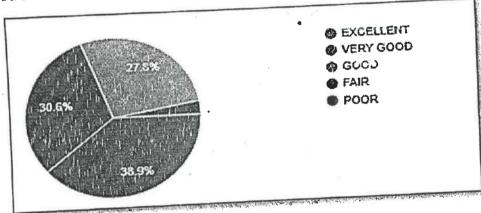
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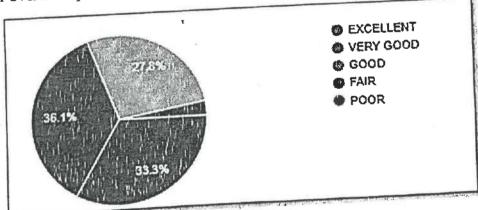
would you rate the course content in terms of being easy to follow?



How would you rate the trainer for the STAAD Pro course?



How was your overall experience with the add on course (Basics of STAAD Pro)?



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Certificates



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The is to cough that let . A.K. SHADEN SAME RAJU

student of SE City ye. has unto he tory completed Value Added Course in Bassles of 37.440 Pro between $3^{\rm h}$ January 2024 to $19^{\rm h}$ April 2024 in academic year 2023-24 in anne inden with Bountry flow bearing became. This correlation has been made to been her THE STREET, AND USE STREET

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DEPARTMENT OF CIVIL ENGINEERING



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This is to corrify that his. Ads. THAKUR HIMANSHU

student of SE Civil year has satisfactory completed Value Added Course in Basics of STALD Fro between 8th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley directionance. This certificate has been issued to him her after qualifying the exam.



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This is to certify that Lit Ads. ELECAN SARYES!!

chident of SE Civil year has artisfactory completed Value Added Course in Barlet of STAAD Pro between the January 2024 to 10th April 2024 in academic year 2023-24 in association with Bentley fiee learning Scenese. This certificate has been issued to humber after qualifying the exam.



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This is to certify that Mr. MAIL MADAGHARE SHARWARI

student of SE Civil year has satisfactory completed Value Added Course in Basics of SEAAD Pro-between 8th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley-free learning license. This certificate has been issued to him her after qualifying the exam

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This is to confly that Mr. IMs. DESAI ARIEUPPILA AUTT

student of SE Civil year has astisfactory completed Value Added Course in Bester of STAAD Pro between 8th Jamesry 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley free learning timms.—This certificate has been immed to him-ber after qualifying the exam.

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ELAAD Peo between 1th Juniary 2034 to 15th April 2034 in academic year 2023-24 in anacterion with Dunkey feet learning because. This cortalizate has been instead to him her white qualifying the cuitm.

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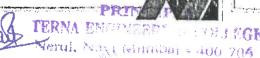
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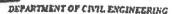






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This is to comply that hir, Ods. MAKHILIA MORRISH SARDER?

student of SE Civil year has satisfactory completed Value Added Course in Basics of STAAD Pro between 8th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley flew learning becase. This certificate has been issued to him ber after qualifying the exam.

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This is to correly that Mr. Dil. PARKAR TARYT YTRAYAR

student of SE Croit year has satisfactory completed Value Added Course in Basiles of STAAD Pro between 5th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley fron learning license. This cretificate has been issued to him for after qualifying the cases.

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CERTIFICATE

This is to certify that Mr. Mrs. KVERAPE CHAITALI

student of SE Civil year has satisfactory completed Value Added Course in Basics of STAAD Pro between 5th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bendley five learning license. This certificate has been issued to him/ber after qualifying the exam.

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This is to comp that his. Als. PASHTE YERAJ RAVINDRA

of SE Civil year has satisfactory completed Value Added Course in Basics of STAAD Pro between 8th January 2024 to 19th April 2024 in academic year 2023-34 in then with Bentley flee learning license. This cornficme has been issued to him her er qualifying the exam

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This is to certify that his. Als. KUMTHEKAR AADITY'A SARLAY student of SE Civil year has extended y completed Value Added Course in Bestes of STAAD Pro between 8th Jacobsy 2024 to 19th April 2024 in academic year 2023-24 in association with Bondley five learning license. This certificase has been issued to him her after qualifying the exam.

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This is in control that Mr. Als. RAUT SAURABH VIEAS

student of SE Civil year has satisfactory completed Value Added Course in Burdes of STAAD Pro between 8th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley five learning license. This certificate has been turned to him/her after qualifying the exam.

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This is to could that Mr. Als. PANYALKAR STRAD SUDARSHAR student of SE Civil year has satisfactory completed Value Added Course in Basics of STAAD Free between 8th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bendey free learning license. This certificate has been issued to him her after explifying the exam.

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This is to certify that hir. Als. SABLE PRIVATED VARDAM

student of SE Civil year has satisfactory completed Value Added Course in Buxles of ST.LAD Pro between 8th January 124 to 15th April 2024 in sendentic year 2023-24 in association with Bendey free leaving Liceuse-This cordificateline been issued to him her after qualifying the exam.

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This is to certify that Mr. Ads. QURESHI MD RAZA FIROZ

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student of SE Civil year has satisfactory completed Value Added Course in Basics of STAAD Pro between 8th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley free learning liceuse. This certificate has been issued to him her after qualifying the exam.

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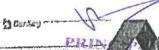
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This is to compy that Mr. Ads. SHINDE RUCHA RAMESH

student of SE Civil year has saturfactory completed Value Added Course in Busics of STAAD Pro between 8th January 2014 to 10th April 2024 in academic year 2023-24 in association with Bessley free fearming license. This certificate has been usued to him/her after qualifying the custs.

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This is to comply that Lo. O.S. CHARDAWALK ADITION PLLAY student of SE Civil year has satisfactory completed Value Added Course in Bester of STAAD Pro between \$6 January 2024 to 196 April 2024 as academic year 2023-24 as association with Bentley flee bearing bomes. This cavilidate has been faund to him her after qualifying the exam.

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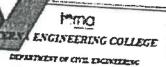


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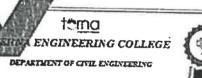
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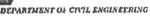
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This is to cortify that Mr. S.G. DHOBALE MRUSHINGSH SUBBLASH student of SE Civil year has satisfactory completed Value Added Course in Review of STAAD Pro between \$1 January 2024 to 10th April 2024 in academic year 2021-24 in association with Dentley the learning license. This care these has been issued to been bee after qualifying the exam

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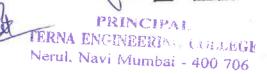
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This is to corejy that hir. Ads. SANGLE SUMANSHU MANGESH

student of SE Civil year has satisfactory completed Value Added Course in Basics of STAAD Pro between 2th January 2024 to 19th April 2024 in academic year 2023-24 in association with Bentley developming biocuss. This confident has been insued to him/her after qualifying the exam.

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This is to compy that her, this, DESA! VAISHEAV! BALKEISHNA

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Mr. Prodin Sanguan

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Priyanka Salunkhe

HoD

Mr. Pradip-Sonawane



NPTEL-AICTE Faculty Development Programme



(Funded by the MoE, Govt. of India)



This certificate is awarded to

DR KISHOR SHAMRAO SAKURE

for successfully completing the course

Management Information System

with a consolidated score of 79 %

Prof. Andrew Thangaraj

NPTEL Coordinator

IIT Madras

PRINCIPAL TERNA ENGINEERING COLLEGE Neral, Navi Mumbai - 400 706

(Jul-Oct 2023)

Roll No: NPTEL23MG87S742300399

Suration of NPTEL course: 12 Weeks

TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Affiliated to University of Mumbai)

Ptot No. 12, Sector 22, Opposite Railway Station, Nerul (W), Navi Mumbai- 400706. Ph. +91 22 61115444, Fax No.+91 22 61115400 Web alstres: the content as in the content of the content of

Report on

Basics of PLC& HMI Programming, 3-D Simulation, IoT, Hands-on-Programming on PLC

Enrolled Students

B.E. Mechatronics Engineering

Academic Year:

2023-2024

Organized by

Mechatronics Engineering Department



&

Absolute Motions Pvt Ltd, Thane



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Nerul, Navi Mumbai - 400 706



CONTENT

Sr. No.	Topic
1	Meeting, Approval
2	About Institute & Department
3	About Course
4 .	About Consultancy
5	MoU
6	Schedule
7	Syllabus
8	CO,PO & PSO
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11	Rubrics
12	Result
13	Certificates

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1. Meeting, Approval

1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

20.09.2023

With reference to meeting held and Minutes of meeting recorded the summary of minutes of meeting is as below. The Department of Mechatronics Engineering has planned to conduct training on PLC and HMI to provide knowledge to students regarding for vital subjects of our discipline. The following faculty members were present in the meeting conducted on 20 sept 2023 at mechatronics HOD Cabin to finalize the training.

- 1) Prof.VikramVyawahare (HOD)
- 2) Prof. Gaurav Deshmukh (TPO)
- 3) Dattatrya Shinde (Department Coordinator)

Prof Vikram Vyawahare Dept. of Mechatronics Engg.

North, Navi Marrian - 400 706



Quotation for Custom Training

Alister D'Silva <adsilva@absolutemotion.in> To: Vikram Vyawahare <vikramvyawahare@ternaengg.ac.in> Cc: Gaurav Deshmukh <gauravdeshmukh@ternaengg.ac.in>, Sushil Mishra <smishra@absolutemotion.in>

Dear Sir,

Please find attached the costing for the training session. We will generate the bill once we receive the payment. We have calculated to total training cost as per the sheet released by your department, attached in the mail.

Total Due-52492 (1500 inc GST per head x 35, minus GST adjustment)

Kindly make the payment to the following:-

Simumotion Industrial Academy Pvt Ltd Ac No 50200073365427 IFSC HDFC0000175

Amount Due: 52492

Best Regards,

Alister DSilva Absolute Motion Fvt Ltd

www.absolutemotion.in

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Payment



Simumotion Industrial Academy Private Limited

Srishki Square, First Floor, 195 Rd Bhandup Imfustrial Area, Bhandup West Murebai Maharashtra 609078 India 65TIN 17463Cs28628170

ESTIMATE

Listimate Date Expire Date : KST-000028 : 10/08/2023 : 24/08/2023 Place Of Supply

: Maharashtra (27)

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Terna Engineering College

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Prayes Custom Training (industrial Automation and Iloff)

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Looking forward for your business.

Terms & Conditions
Taxes levied at actual

Authorized Signature

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2. About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and premium technical institutions, with 'A' Grade from Government of Maharashtra having ISO 9001 Quality Management System and is among the top Colleges in Mumbai. It is located at Nerul, Navi Mumbai on a beautiful 3 acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG and 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote centre of IIT Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

2.1 About Department

A mechatronic system is a multidisciplinary system embodying a synergistic combination of the disciplines of electrical/electronics, mechanical and computer science / information technology.

Mechatronics Engineering Department at Terna engineering college started in 2015 and is the first department to offer a bachelors degree in Mechatronics Engineering, among the state university affiliated colleges in Maharashtra.

UG intake of 60.

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3. About Training

PLC technology is required for Automation. It is one the core area in Mechatronics field. As a mechatronics engineer, the knowledge of PLC programming along with HMI and SCADA is essential skill to get the job in Automation.

Training was scheduled in online and offline sessions for students. For the training department signed MoU with Absolute Motion Pvt Ltd, Thane.

Outcomes:

- To understand the job areas and positions in automation field
- To understand the basics of PLC components and programming
- To understand the HMI and SCADA technology
- To get Hands on training on PLC.

4. About Trainer

Absolute motion Pvt Ltd is service provider industry in automation located at Thane.

They provide expert programming support for PLC based projects and for high precision, high speed requirements we provide Motion Controller programming by our experienced Application team. They make sure your Visualization requirements are fulfilled by developing high quality user friendly screens that are practical as well as aesthetically pleasing.

They understand that special applications have unique design needs. They provide customized solutions on demand, such as our Custom SCADA reporting tool- Absolute Report. They have custom designed solutions for IOT powered gas monitoring and IOT powered water treatment and distribution.

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<u>MEMORANDUM OF UNDERSTANDING</u> (<u>MoU</u>)

Between

Absolute Motion Private Limited

And

Department of Mechatronics Engineering

Terna Engineering College (TEC Nerul), Nerul

Navi Mumbai –400706.

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Herul, Navi Mumbai - 400 706



This agreement made and entered on this 16th day of As 2023 between TEC Nerul, Navi Mumbai and Absolute Motion Private Limited (Confpany)

1. OBJECTIVE OF MOU

- The objective of this memorandum of understanding is:
- To promote interaction between Terna Engineering College, Nerul and Absolute Molton Private Limited in mutually beneficial areas.
- To provide formal basis of initiating interaction between TEC NERUL and Absolute Motion Private Limited.

2. PROPOSED MODES OF COLLABORATION

- * TEC NERUL AND Absolute Motion Private Limited propose to collaborate through
- Conducting courses and workshop after mutual agreement on commercial terms & conditions for students of TEC NERUL on regular basis, through Prayus skill development programs.
- Guiding student projects/ faculty projects at TEC NERUL (Final year or research)
- Guiding R&D projects, which may be carried out wholly at TEC NERUL or at premises of COMPANY or partly at TEC NERUL and partly at COMPANY.
- Including selected TEC NERUL students in Prayas training and placement program, where students will be trained and then placed in core Industrial Automation Robotics Industry.
- Any other appropriate mode of interaction agreed upon between TEC NERUL and COMPANY. Each of the above modes of interaction will be initiated by entering into a separate agreement between the two parties.

3. TECHNICAL AREAS OF COLLABORATION

The Principal technical areas of collaboration between TEC NERUL and COMPANYwith be as set out in Annexure A.

4. CONFIDENTIALITY

- The obligation above shall not extend to any confidential information for which the receiving party can prove that this information.
- Is in public domain at the time of discloser or comes within the public domain without fault of receiving party.

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- Is received from third party having no obligation of confidentiality to the disclosing party.
- Is independently developed by the receiving party.

5. NON - EXCLUSIVITY

The relationship of the parties under this MOU shall be nonexclusive and both parties, including their affiliates, subsidiaries and divisions, are free to pursue other agreements or collaborations of any kind. However, when entering into a particular research agreement the participants may agree to limit each party's right to collaborate with others on that subject

6. TERMS AND TERMINATION

This MOU shall be valid for three (3) year from the date of its entering into and it may be mutually extended from time to time in writing by both institutes.

This MOU may be amended or terminated earlier by mutual written agreement of parties at any time. Either party shall have the right to unilaterally terminate this MOU upon 60 days prior written notice to the other party. However, no such early termination of this MOU, whether mutual or unilateral, shall affect the obligations of the participants under any research agreement. Confidentiality clause as referenced in clause 6 above, or any other agreement entered into pursuant to this MOU, shall survive which obligations shall survive any such termination.

7. RELATIONSHIP

Nothing in this MOU shall be construed to make either party an agent or legal representatives of the other for any purpose.

8. ASSIGNMENT

It is understood by the Parties herein this MOU is based on the professional competence and expertise of each party and neither party shall transfer or assign this Agreement of rights or obligations arising hereunder either wholly or in part to any third party.

9.COSTS OF MOU

Each Party shall bear the respective costs of carrying out the obligation under this MOU.

10. SIGNED IN DUPLICATE

This MOU is executed in duplicate with each copy being an official version of the Agreement and having equal legal validity.

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BY SIGNING BELOW, the parties, acting by their duly authorized officers, have caused this Memorandum of Understanding to be executed, effective as of the day and year first above written.

ANNEXURE A

TECHNICAL AREAS OF COLLABORATION

- Organizing workshops, seminars with joint participation of the faculty and the industries.
- Arranging visits of staff members to various industry
- Professional consultancy by faculty to industries.
- Industrial testing by the faculty & technicians in laboratories.
- Joint research programs and field studies by faculty and people from industries.
- Visits of faculty to industry for study and discussions or delivering lectures on subjects of mutual interest.
- Visits of industry executive and practicing engineers to the institute for seeing research work and laboratories, discussions and delivering lectures on industrial practices, trends and experiences.
- ❖ B.E. projects / dissertation work in industries under joint guidance of the faculty and experts from industry.
- Short term Assignment to faculty members in industries.
- Visiting faculty/ professors from industries.
- Practical training of students in industries.

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Absolute Motion Private Limited		Terna Engineering College / TEC Neru			
Signaturel	Anyan	Signaturel	101.		
Name	Alister DSilva	Name	Dr. L. K. Ragha		
Designation	Director	Designation	Principal - TEC NERUL		
	Bhandup, Mumbai	Place	Nerul, Navi Mumbai		
Place Date		Date			
Signature2	din'	Signature2	Nyquators		
Name	SushitMishra	Name	Prof. Vikram S Vyawahare		
Designation	Director	Designation	HOD Mechatronics - TEC Nerul		
Place	Bhandup, Mumbai	Place	Nerul, Navi Mumbai		
Date		Date			

Witness 1	Mr. ay.	Witness I	(many
Name	Jignesh Gilda	Name	Mr. Manoj Kokate
Designation	Director	Designation	Management Coordinator
Place	Bhandup, Mumbai	Place	Nert i, Navi Mumbai
Date	20/3/2021	Date	
Witness 2		Witness 2	
Name		Name	
Designation		Designation	
Place		Place	
Date	9	Date	

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5 | Page



5. Schedule & Syllabus

Training was scheduled in online and offline mode.

Online Mode: Date: 5th Oct to 19th Noc 2023: 7pm to 9pm

Offline Mode: 20^{th} Nov -22^{nd} Nov 2023: 10am to 5pm

Syllabus

- *PLC programming with advanced functions
- *3-D Simulation of Machines
- *SCADA and HMI programming
- *Arduino & Raspberry Pi based IoT
- *Node-red and implementation
- *MQTT protocol, OPC UA protocol, Modbus communication protocol
- *Blynk dashboard and IBM Node red Dashboard design for IOT projects

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7. CO, PO & PSO

After completion of the course the student will be able to design and program industrial controller.

7.1 Course Objectives

1) To introduce technologies relevant to industrial automation from leading automation company

7.2 Course Outcome

Learners will be able to

- To understand the job areas and positions in automation field
- To understand the basics of PLC components and programming
- To understand the HMI and SCADA technology
- To get Hands on training on PLC.

7.3 Program Outcome

- PO 1: -Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
- PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO 4:** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- **PO 6:** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

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- PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO 11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

7.4 Program Specific Outcome

- **PSO 1:** -Ability to find creative solutions to real life problems uses concurrent interdisciplinary approach to engineering design.
- PSO 2: Ability to develop and program advanced manufacturing systems such as CNC machines, rapid prototyping systems and industrial robotics.
- PSO 3: Ability to select appropriate sensors, actuators and control systems depending on application requirement in the domains such as industrial automation, process control, automotive electronics and MEMS.
- PSO 4: Ability to simulate, analyze and design complex interdisciplinary technology systems with embedded software and hardware.



9. List of Students

Sr no	Name	Email Address	
1	AMAN SHAIKH ALTAF	amanshaikhaltaf2000@gmail.com	
2	Saurabh Sanjay Bharambe	sohombharambe2411@gmail.com	
3	Pruthu Songirkar	pruthusongirkarl@gmail.com	
4	Praveen Singh	praveensingh@ternaengg.ac.in	
5	OMKAR KOLI	koli6omkar@gmail.com	
6	Prashant Ingawale	prashantingawale12345@gmail.com	
7	Omkar Korgaonkar	omkarkorgaonkar786@gmail.com	
8	Sakshi Lagad	lagad.sakshi.4@gmail.com	
9	Aman Rizwan Mulla	mullaaman289@gmail.com	
10	Tanmay Pednekar	tanmaypednekar45@gmail.com	
11	Sahil Shinkar	sahilshinkar02@gmail.com	
12	Janhavi Nalawade	janhavinalawade@ternaengg.ac.in	
13	Ketan Desai	ketandesai@ternaengg.ac.in	
14	Homendra Kumar	homendra2901@gmail.com	
15	Bijapuri limran Ashfaque	limranashfaque@gmail.com	
16	Hrishikesh Ramesh Jadhav	hrishi09.hj@gmail.com	
17	Moizz Vasim Khan	muizkh11@gmail.com	
18	Nishant warang	Warangnishant8@gmail.com	
19	Rushikesh Salunkhe	salunkherushi2512@gmail.com	
20	Armash khan	armashkhan31@gmail.com	
21	Sarthak Shelar	sarthakshelar2.0@gmail.com	
22	Namrata Pawar	namratapawar@ternaengg.ac.in	
23	Sujit Narayan Patil	sujitpatil0899@gmail.com	
24	Vishal chaudhari	vishalrajkumarchaudhari@ternaengg.ac.in	
25	Aditya Tiwari	aaditiwari13@gmail.com	
26	Jay Rajesh Hiswankar	jayhiswankar@gmail.com	
27	Rishabh Pal	19rishabhpal2000@gmail.com	
28	Virendra badekar	virendrabadekar07@gmail.com	
29	Varun Patekar	varunvilaspatekar@gmail.com	





10. Attendance

Name	Assigned Batch	Day 1 Attendance	Day 2 Attendance	Day 3
AMAN SHAIKH ALTAF	Batch 2	Present	Present	Present
Saurabh Sanjay Bharambe	Batch 1	Present	Present	Present
Pruthu Songirkar	Batch 2	Present	Present	Present
Praveen Singh	Batch 1	Present	Present	Present
OMKAR KOLI	Batch 1	Present	Present	Present
Prashant Ingawale	Batch 1	Present	Present	Present
Omkar Korgaonkar	Batch 1	Present	Present	Present
Sakshi Lagad	Batch 1	Present	Present	Present
Aman Rizwan Mulla	Batch 2	Present	Present	Present
Tanmay Pednekar	Batch 2	Present	Present	Present
Sahil Shinkar	Batch 2	Present	Present	Present
Janhavi Nalawade	Batch 1	Present	Absent	Present
Ketan Desai	Batch 1	Present	Present	Present
Homendra Kumar	Batch 2	Present	Present	Present
Bijapuri limran Ashfaque	Batch 1	Present	Present	Present
Hrishikesh Ramesh Jadhav	Batch 1	Present	Present	Present
Moizz Vasim Khan	Batch 1	Present	Present	Present
Nishant warang	Batch 1	Present	Present	Present
Rushikesh Salunkhe	Batch 2	Present	Present	Present
Armash khan	Batch 2	Present	Present	Present
Sarthak Shelar	Batch 1	Present		Present
Namrata Pawar	Batch 2	Present	Absent	Present
Sujit Narayan Patil	Batch 1	Present	Present	Present *
Vishal chaudhari	Batch 1	Present	Present	Present
Aditya Tiwari	Batch 1	Present	Present	Present
Jay Rajesh Hiswankar	Batch 1	Absent	Absent	Absent
Rishabh Pal	Batch 2	Present	Present	Present
Virendra badekar	Batch 2	Present	Present	Present
/arun Patekar	Batch 2	Present	Present	Present





1. Rubrics for Assessment

programming	Understanding	component selection	Attendance	Total
15	10	15	10	50

15. Result

On the basis of criteria for certification out of 29 students 29 were qualified.

PRINCIPAL
TERNA ENGINEERING COLLEGE

i, Navi Mumbai - 400 704



Certificate of Internship

This is to certify that

Janhavi Nalawade

May completed 46 fours of addistrial tratoing with Absolute Motion Pvt Ltd

Training Date: 5th October- 22nd November 2023 Scope: Basics of PLC & HM1 Programming, 3-th Simulation, loT, Mands on Programming on PLC

SUSHIL MISHRA Manageny Diencene



ALISTER DSHLVA Dirugtor & Bend to sign



Certificate of Internship

This is to cently that

Aditya Tiwari

Has completed 40 knors of industrial training with Absolute Motion Pvt Ltd

Training Date: 5th October- 22nd November 2024 Scope: Basics of PLC & HMI Programming, 3-D Simulation. loT, Hunds-on Pregramming on PLC

SUSHIL MISHRA Managing Director

ALISTER DISLLVA Disector's Renal Trainer

Nerd, Navi Mumbai - 400, 706



DTE INSTT.CODE: 3190

Regd. No. E-91, (Dsmanabad) Dated 30-89-80

TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Affillated to University of Mumbal)

Plot No. 12, Sector 27, Opposite Rallway Station, Nerul (W), Mari Mumbal-400706, Ph. +91 22 61115444, Fax No. +91 22 61115400

Date: 01/11/2023

To,

The Principal

Terna Engineering College,

Nerul, Navi Membai - 4000706

Subject: - Regarding Permission for conducting Skill Based Learning program

Respected Sir,

To make the students industry ready and feedback received by students, we have decided to conduct Add on course on software's ETabs, Tekla and Staad-Pro in Association with Confluence Training, Nanded, during the academic year 2023 - 24. [request you kindly to provide the permission to conduct the same. The selected course will be useful to students for proficiency in above software.

Kindly provide permission to do the same.

Thanking You.

Yours Faithfully.

Mr. Jamaluddia Maghrabi

AOC Incharge

Dr. Priyaaka Salunkhe

HOD

FERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

1. Title of the course

Course on Staad-Pro

2. Objective of the course

: To make student learn Staad-Pro Software which is required for analysis and design of structure. This will be beneficial to student for their final year project and for

placement as a Design Engineer.

3. Prerequisite

: Basics of Structural Analysis

4. Beneficiary

: Students and Faculties

5. Date & Duration of the course: 12.01.2024 to 09.02.2024

6. No of hours required

: 40 Hours

7. Internal Resources

: Ritesh Tandekar

8. Course Registration fees

9. Contents of the course

: Enclosed

10. Credits / Certification

: Those who have 75% attendance for certification.

11. Venue

: Online

Course Coordinator

Dept. of Civil Enga

Nerul, Navi Munipai - 400 706



TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

CIRCULAR

All the students of semester VIII and faculties of department of Civil Engineering Terna Engineering College, Nerul, Navi Mumbai, are hereby informed to enroll their names for add on course "Staad-Pro".

COURSE FEATURES:

Course Duration

: 40 Hours

Beneficiary

: Students & Faculties

Certificate

: Yes

Location

: Online

Schedule

: 12,01,2024 to 09.02,2024

HOD

Dept. of Civil Engg

PRINCIPAL
FERNA ENGINEERIVO COLLEGE
Send. Navi Mumbai - 400 706



2.0 About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and it is located at Nerul, Navi Mumbai on a beautiful 3-acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG, 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote centre of IIT Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab. Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

2.1 About Department:

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to promote the disciplines of Planning, Design, Construction, Operation,

Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly qualified and dedicated faculty are recruited and they are always on their toes to guide the students, form the backbone of the department.

Key Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Engineering Geology, Civil Computer Laboratory, Surveying Laboratory, Hydraulies and Fluid Mechanics Laboratories
- Consultancy Services Offered and Fully Equipped with Major Facilities Like Fully Automatic Compression Testing Machine 2000 kN (NABL Accredited) Fully Automatic Universal Testing Machine (UTM 100 Ton- NABL Accredited), Fully Automated Total Station for Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing
- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas,
 Power Projects





- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures,
 Pavement Design & Analysis, Geotextile Materials for Soil Stabilization, Geotechnical
 Engineering, Remote Sensing & GIS
- Active Mentoring Processes for Continuous Assessment in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- Expert Lectures by Industry Experts
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- · Patents, Designs and Copyright Development
- Achieved 100 % students intern during winter vacations (2019-2020) in renowned organizations like Airport Authority of India (AAI), Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), Rashtriya Chemical Fertilizers (RCF), American Concrete Institute and so many.

3.0 About Course

This course covers the learning of Staad-Pro software with its different features. It will also helpful for student to analyze and Design the structure. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 40 hours.

4.0 About Consultancy

Confluence Training Initiative (CTI) was started in year 2021 with aim of providing affordable access to high-quality training in civil engineering. With a very small and highly experienced team we have conducted multiple training programs in Pune & Mumbai and planned to keep on serving in the future. Following are some key features of our add-on training programs.

- ✓ Experienced resource personnel.
- ✓ Project based learning assignment on real life projects.
- ✓ Free additional online learning courses on Stand-Pro.
- ✓ Traceable certificates with QR codes to curb forgery and more.





5.0 Schedule

	SCHEDULE	FOR STAAD-PRO TRAINI	NG PROGRAM
Date	Day	Time	Module
12-Jan-24	Friday	5.00 PM to 9.00 PM	Module No. I
13-Jan-24	Saturday	10.00 AM to 2.00 PM	Module No. 2
14-Jan-24	Sunday	10.00 AM to 2.00 PM	Module No. 3
19-Jan-24	Friday	5.00 AM to 9.00 PM	Module No. 4
20-Jan-24	Saturday	10.00 AM to 2.00 PM	Module No. 5
21-Jan-24	Sunday	10.00 AM to 2.00 PM	Module No. 6
27-Jan-24	Saturday	10.00 AM to 2.00 PM	Module No. 7
28-Jan-24	Sunday	10.00 AM to 2.00 PM	Module No. 8
08-Feb-24	Thursday	10.00 AM to 2.00 PM	Module No. 9
09- Feb -24	Friday	10.00 AM to 2.00 PM	Module No. 10

6.0 Syllabus

Module	Course contents	Hours
ì	Staad Commands for modelling, supports & Properties with examples	4
2	Staad command for Loadings and Analysis with examples	4
3	Introduction to PEB Structures	4
4	Modelling, Analysis of a frame	4
5	PEB Building Project: Planning of the Columns, Beams and Slab	4
6	PEB Building Project: Modelling in STAAD.	4
7	PEB Building Project: Analysis and Design	4
8	PEB industrial Building Project	4
9	Interactive Discussions and Closure of the Staad Training	4
10	Extra Case Study session	4

7.0 Course Objective & Course Outcome

After completion of the course the student will be able to analyze and design the structure.

7.1 Course Objective

- 1. Learn and apply various fundamental principles for structural design of a PEB structure.
- 2. Study of various IS codes required for designing and analysis of a PEB structure.
- 3. Learn various components of a structural design.
- 4. Analysis and Design of PEB structure.

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7.2 Course Outcome

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

- 1. Various principles of designing of PEB structures.
- 2. Acquire knowledge of various Indian Standard Codes required for designing of PEB Structures.
- 3. Learn analysis and design of PEB structures.
- 4. Analysis and Design of PEB structure.

7.3 Program Outcome

- PO 1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
- PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO 6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO 7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO 11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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Nerul, Navi Mumbai - 400 706



Program Specific Outcome

PSO 1: - Graduates will be able to plan, analyze, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.

PSO 2: - Graduates will be able to use different software related to Civil Engineering for developing skills required by the industry.

8.0 CO, PO & PSO Mapping

Sr. No	Content	СО	РО	PSO
1	Stand Commands for modelling, supports & Properties with examples	CO1, CO3	1, 5, 8,9,10,11	2
2	Staad command for Loadings and Analysis with examples	CO1, CO3	1, 5, 8,9,10,11	2
3	Introduction to PEB Structures		1, 5, 8,9,10,11	2
4	Modelling and Analysis frame		1, 5, 8,9,10,11	2
5	PEB Building Project: Planning of the Columns, Bearns and Slab		1, 5, 8,9,10,11	2
6	PEB Building Project:Modelling in STAAD.	CO1, CO3	1, 5, 8,9,10,11	2
7	PEB Building Project: Analysis and Design	CO1, CO3	1, 5, 8,9,10,11	2
8	PEB industrial Building Project		1, 5, 8,9,10,11	2
9	Interactive Discussions and Closure of the Staad Training	CO1, CO2, CO3	1, 5, 8,9,10,11	2





10	Extra Case Study session	CO1, 1,	5, 2
		CO3 8,9	0,10,11

9.0 List of Students BE Student List

Sr. No	Name of student	TUF ID
1	Vismay Vinoy	TU7F2021011
2	Shubham Prasad	TU7F2021033
3	Dhanshree Patil	TU7F2021040
4	Hrishikesh Dongre	TU7S2122001
5	Aditya Milind Jadhav	TU7S2122003
6	Rohit Yashwant Bedekar	TU7S2122005
7	Sahil Shashikant Wayal	TU7S2122008
8	Rohan Rajan Parab	TU7S2122006
9	Shivani Suhas Pomendkar	TU7S2122010
.10	Satyaject Dubey	TU7S2122013
11	Yogesh Malvani	TU7S2122015
12	Tejashree Pawar	TU7S2122017
13	Rohit Suhas Matekar	TU7S2122023





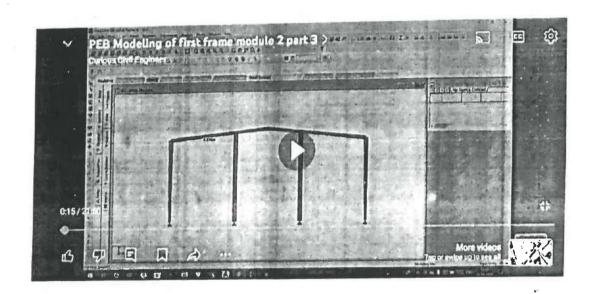
10.0 Attendance

BE Student List

Sr. No	Full Name	11- Jan	12- Jan	13- Jan	18- Jan	19- Jan°	20- Jan	25- Jan	Jan	08- Feb	09- Feb	Avg
1	Vismay Vinov	p	l)	p	A	P	٨	þ	P	Р	Р	80
2	Shubham Prasad	p	A	A	P	P	٨	р	P	P	Δ	60
3	Dhanshree Patil	P	Α	p	Α	P	P	Λ	٨	Р	ף	. 40
4	Hrishikesh Dongre	P	A	P	р	Α	P	p	P	P	P	80
5	Aditya Milind Jadhay	A	Α	P	Р	Α	p	P	P	Α	Λ	50
6	Rohit Yashwant Bedekar	p	P.	р	A	Λ	Α	Α	P	ļı.	р	60
7	Sahil Shashikant Wayal	Р	P	P	٨	Р	P	Λ	Р	Р	P	80
8	Rohan Rajan Parab	Р	P	Р	Λ	P	Р	þ	Λ	٨	I,	70
9	Shiyani Suhas Pomendkar	A	Α	Α	P	P	P	Р	A	P	P	46
10		P	P	Λ	Р	Р	P	Р	<u>b</u>	p	P	90
11	Yogesh Malvani	Р	Р	P	Р	Р	P	P	Р	P	P	100
12		P	Р	P	Р	Р	Α	Α	P	P	P .	80
13	The second secon	Р	Р	Λ	Α	Р	P	P	P _	P	P į	80

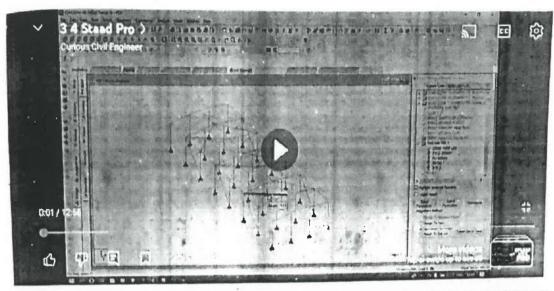
11.0 Online Session (Link & Screenshot)

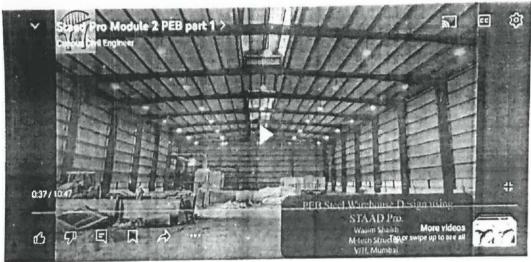
Link for online session: https://youtu.be/r6FRYYv3EgM?feature=shared



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12.0 Result

BE Student List

Sr. No	Name of student	Remark			
1	Vismay Vinoy	Qualified			
2	Shubham Prasad	Not Qualified			
3	Dhansbree Patil	Not Qualified			
4	Hrishikesh Dongre	Qualified			

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Nerul, Navi Mumbai - 400 706

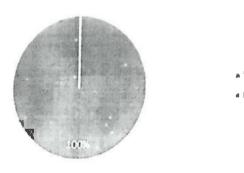


5	Aditya Milind Jadhav	Not Qualified
6	Rohit Yashwant Bedekar	Qualified
7	Sahil Shashikant Wayal	Qualified
8	Rohan Rajan Parab	Qualified
9	Shivani Suhas Pomendkar	Not Qualified
10	Satyaject Dubey	Qualified
11	Yogesh Malvani	Qualified
12	Tejashrec Pawar	Qualified
13	Rohit Suhas Matekar	Qualified

13.0 Feedback

In order to collect the feedback of the training session a google form was floated which consisted of specific questions to gauge the training program. Below is the question wise analysis of the feedback.

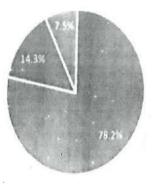
1.Do you feel Staad-Pro training would be beneficial for your career?



2. How was the curriculum of the Staad-Pro Training Program?

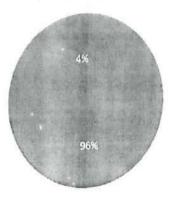






- Excellent
- * Very Good
- Good
- * Foir
- ∞ Poor

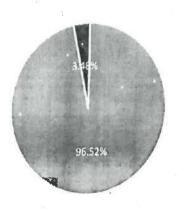
3. Was the Staad-Pro curriculum completed as planned?



¥Yes

■ No

4.Did the Staad-Pro training content meet our expectation?



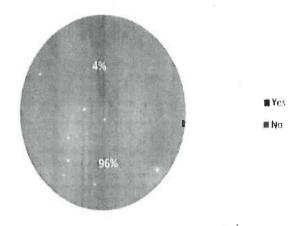
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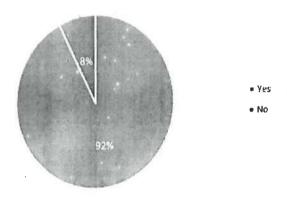
5.Did your trainer respond to your queries in a timely manner?

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Neral, Navi Mumbai - 400 706

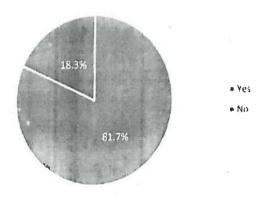




6. Was the time allotted for the training sufficient?



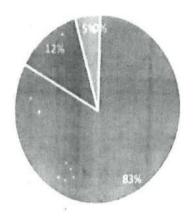
7. Where you able to practice alonge with the instructor?



8. How would you rate the course omtent in terms of being easy to follow?

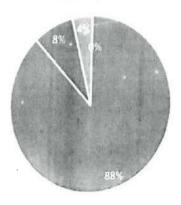
PRINCIPAL TERNA ENGINEERING COLLEGE Nerut, Navi Mumbai - 400 706





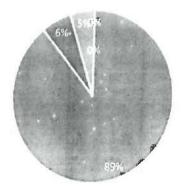
- Facellent
- Very Good
- · foed
- Fair
- · Perer

9 How would you rate the trainer for the Staad-Pro?



- Excellent
- Felir Good
- Good
- * Fair
- = Pour

10. How was your overall experience with the Staad-Pro training?

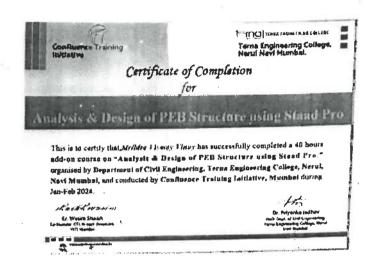


- Excellent
- Very Good
- Good
- « Fair
- · Pour

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14.0 Sample Certificates





PRINCIPAL PRINCI





Terms Engineering College.

Certificate of Completion for

Analysis'& Design of PEB Structure using Stand Pro

This is to certify that Mr.Mrs Helializeth Unrich Honger has successfully completed a 40 hours add-on course on "Analysis & Design of PEB Structure using Stand Pen," organized by Department of Civil Engineering, Terma Engineering College, Neval, Navi Mambai, and quadreted by Confluence Training Initiative, Mambai during Jan-Feb 2024.

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Dr. Priyanis Jadker No. Dust of Col Espinaning Fore Espinaning College, Hone

Prof. Ritesh Tandekar Dept. T & P Coordinator Prof. Poonam Patil APC

Dr. Priyanka Salunkhe HOD

PRINCIPAL
NEWA ENGINEERING COLLEGE
Nerul, Navi Mumbai - 400 706



TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Affiliated to University of Mumbai)

Plot No. 12, Sector 22, Opposite Railway Station, Nerul (W), Navi Mumbai- 400706. Ph. +91 22 61115444, Fax No.+91 22 61115400
Web: https://temagng.ac.in/

Report on

Add on Course - Basics of STAAD-Pro

Enrolled Students

S.E. Civil Engineering Students

Academic Year:

. 2023-2024

Conducted by

Dept. of Civil Engineering, TEC
In Association with

Department of Civil Engineering, Nerul, Navi Mumbai



&

Bentley Education, USA

3 Bentley

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FERNA ENGINEERING COLLEGE
Nervi, Navi Mumbai - 400 706





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. 7	Course Objective & Course Outcome	7
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1. Meeting and Approval 1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

26th October 2023

With reference to meeting held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct Value Added Course to provide knowledge to students regarding for vital subjects of our discipline. The following faculty members were present in the meeting conducted on 25 October 2023 at Civil HOD Cabin to finalize the Value added course to be offered for this year.

The HOD and the staff members concluded the following Add on Course for the academic year 2023-2024

SL. No.	Name of Value Added Course	Semester	Hours	Course Incharge
1.	Value added Course (Basics of Staad- Pro)	IV	40	Pradip Sonawane.

In the meeting it was decided to prepare syllabus of the program by the staff in charge within a week from the date of meeting.

- 1) Dr. Priyanka Salunkhe (HOD)
- 2) Jamaluddin M. (Course Coordinator)
- 3) Pradeep Sonawane (Faculty Member)

TERNA ENGINEERING COLLEGE

Nerul, Navi Mumbai - 400 706

Dr. Priyanka Salunkhe Dept. of Civil Engg.

1.2 Approval

TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Date:-03rd January 2024

To.

The Principal

Terna Engineering College,

Nerul, Navi Mumbai - 4000706

Subject: - Regarding Permission for conducting Value Added Course Basics of Staad-Pro.

Respected Sir,

Requirement of proficiency in software has become essential for students. In view of this we have decided to conduct an Value Added Course on Basics of Staad-Pro in Association with Bentley Education, USA during the academic year 2023 – 24 for semester-IV students. I request you to provide the permission to conduct the same. The selected course will be useful to students for learning basics of structural Analysis which will help students to set their skills and carry final year project using Staad-Pro software. Instructor of this course will be our faculty.

Kindly provide permission to do the same.

Thanking You.

Yours Faithfully.

Mr. Jamaldddin Maghrabi

AOC Incharge

_PRINCIPAL

TERNA ENGINEERING COLLEGE

Narul Navi Mumbai - 400 706

P

Dr. Priyanka Salunkhe

HoD

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Affillated to University of Mumbal)

Plot No. 12, Sector 22, Opposite Rallway Station, Nerul(W), Navi Mumbal - 400706. Ph. +91 22 61115444, Fas No.+91 22 61115446. Web : Www.terng.orn.o- mall : principal@terno.org

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

1. Title of the course

: Value Added Course (STAAD-Pro)

2. Objective of the course.

: To make student learn Staad Pro Software which is required for

analysis and design of structure. This will be beneficial to

student for their final year project.

3. Prerequisite

: Basics of Structural Analysis

4. Beneficiary

: Students and Poculties

5. Date & Duration of the course; 08.01.2024 to 19.04.2024

6. No of hours required

: 40 Hours

7. Internal Resources

: Mr. Pradip Sonawane.

8. Internal Assessment

: Assignment

9. Contents of the course

: Enclosed

10. Credits / Certification

: 75% attendance & submission of assignment are eligible for

certification.

11. Venue

: Civil Engineering Computer Lab.

Course Coordinator

TERNA ENGINEERING COLLEGINERUL, Navi Mumbai - 400 706

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About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and premium technical institute. It is located at Nerul, Navi Mumbai on a beautiful 3 acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG and 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote centre of IIT Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

2.1 About Department

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to promote the disciplines of Planning, Design, Construction, Operation, Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly qualified and dedicated faculty are recruited and they are always on their toes to guide the students, form the backbone of the department.

Key Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Engineering Geology, CAD Laboratory, Surveying Laboratory, Hydraulics and Fluid Mechanics Laboratories
- Consultancy Services Offered and Fully Equipped With Major Facilities Like Fully Automatic Compression Testing Machine 2000 kN (NABL Accredited), Fully Automatic Universal Testing Machine (UTM 1000 kN- NABL Accredited), Fully Automated Total Station for Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing
- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas, Power Projects

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- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures, Pavement Design & Analysis, Geotextile Materials for Soil Stabilization, Geotechnical Engineering, Remote Sensing & GIS
- Active Mentoring Processes for Continuous Assessment in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- Expert Lectures by Industry Experts
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- Patents, Designs and Copyright Development
- Achieved 100 % placement in AY 2022-23. Many students completed internship during winter vacations (2022) in renowned organizations like, Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), and many more.

3. About Course

An add on course of basic training of STAAD-Pro software has been introduced by the Department of Civil Engineering, Terna Engineering College, Navi Mumbai for S.E.(Civil) students. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 30 hrs.

4. About Instructors

This course will be conducted by Mr.Pradeep Sonawane

 Mr.Pradeep Sonawane faculty of TEC having 8 years of teaching experience. He having 1 Year field experience in building construction work. He has carried out Planning, analysis & Design of different residential project work.

5. Course Scheme

The marking scheme of this course has been decided at the institute and the departmental level:

VALUE ADDED COURSE:-Basics of STAAD-Pro

Contact Hours: - 02 per week (Total 40)

Sem. :-IV

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Syllabus

Fopic No.	Contents	Hours
1	Introduction to STAAD-Pro, Silent features, Menu of Preprocessor & Post processor	3
2	Modeling of structures with commands of Staad	3
3	Validation of Software with manual calculation for simply supported beam	6
4	Analysis of Beams with different types of loadings and support with exercises	6
5	Analysis of Plane Frame with different types of loadings and support with exercises	6
6	Analysis of Space Frame with floor loads, with exercises	6
7	Loads and load combinations as per IS codes	2
8	Modeling of G+2 residential building	8
	TOTAL	40

7. Course Objective and Course Outcome

After completion of course the student will be able to model, analyse and interpret the results from software

Course Objective

- 1. To provide basic knowledge of different Software in Civil Engineering.
- 2. To validate the software with manual calculations.
- 3. To understand and apply the basic functions of software.
- To understand applications of codes in software.
- 5. To prepare the database and perform its statistical analysis using relevant software.

Course Outcome

On completion of this course, the students will be able to:

- CO1- To understand the functions involved in various software related to civil engineering field.
- CO2- To understand the various commands of software
- CO3- To analyse the different types of structural members.
- CO4- To understand loads and load combinations to be applied to the structure
- CO5- To Provide hands-on training on analysis, modeling and design of R. C. C. framed structures.





rogram Outcome

PO 1: -Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering

PO 2: - Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics,

natural sciences, and engineering sciences

PO 3: - Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental

PO 4: - Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of

the information to provide valid conclusions.

PO 5: - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6: - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to

PO7: - Environment and sustainability: Understand the impact of the professional engineering solutions the professional engineering practice. in societal and environmental contexts, and demonstrate the knowledge of, and need for

PO 8: - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and

PO 9: - Individual and team work: Function effectively as an individual, and as a member or leader in

diverse teams, and in multidisciplinary settings.

- PO 10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive
- PO 11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

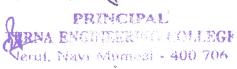
PO 12: - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcome

PSO 1: - Graduates will be able to plan, analyse, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.

PSO 2: - Graduates will be able to use different software related to Civil Engineering for developing

skills required by the industry.



Mapping CO, PO and POS

Practical No.	Name of Experiment	CO	PO	PSO
y u	Introduction to STAAD-Pro, Silent features, Menu of Pre-processor & Post processor	ļ	1,3,5,8,9,12	2
2	Modelling of structures with commands of Staad	2	1,2,3,5,8,9,12	2
3	Validation of Software with manual calculation for simply supported beam	2	1,2,3,5,8,9,12	2
4	Analysis of Beams with different types of loadings and support with exercises	3	1,2,3,5,8,9	2
5	Analysis of Plane Frame with different types of loadings and support with exercises	3	1,2,3,5,8,9	2
6	Analysis of Space Frame with floor loads, with exercises	3	1,2,3,5,8,9	2
7	Loads and load combinations as per IS codes	4	1,2,3,5,8,9	2
8	Modeling of G+2 residential building	5	1,2,3,5,8,9	2

9. Schedule

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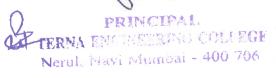
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J. List of Students:

Sr. No.	Roll No.	Student Name	Sr. No.	Roll No.	Student Name	
1	A01	Verma Samar	31	A31	Chandawale Aditya Vijay	
2	A02	Mundhe Rohan	32	A32	Parab Prerna Kamlakar	
3	A03	Karhadkar Ananya Shreenand	33	A33	Mokal Sanskruti Narendra	
4	A04	Mhatre Tejas Chandrahas	34	A34	Birje Jayesh Mahesh	
5	A05	Jundare Sujal Pravin	35	A35	Kindre Sakshi Anant	
6	A06	Shaikh Sahil Raju	36	A36	Valvi Vipul Vikram	
7	A07	Thakur Himanshu Deepak	37	A37	Joshi Mayuresh Nilesh	
8	A08	Elegam Sarvesh Posamallu	38	A38	Nanavare Pragati Madhukar	
9	A09	Madachane Sharwari Sagar	39	A39	Shinde Trupti Anil	
10	A10	Desai Aniruddha Ajit	40	A40	Koli Anisha Rajesh	
11	.A11	Malap Ayush Bhagwan	41	A41	Juvale Kunal Naresh	
12	A12	Palve Pratap Shamrao	42	A42	Salunkhe Soham Krishna	
13	A13	Deshmukh Pratik Pratap	43	A43	Ingale Komal Sanjay	
14	A14	Singh Karan Bijayendrapratap	44	A44	Patil Shantanu Vikas	
15	A15	Makhija Mohnish Sandeep	45	A45	Khatu Siddhant Sachin	
16	A16	Parkar Tanvi Vinayak	46.	A46	Sanap Vidhiti Babasaheb	
17	A17	Kurhade Chaitali Harishchandra	47	A47	Netake Prem Kundalik	
18	A18	Pashte Viraj Ravindra	48	A48	Dhobale Hrushikesh Subhash	
19	A19	Ghadage Prem Pratap .	49	A49	Shirke Bhoomi Santosh	
20	A20	Kumthekar Aaditya Sanjay	50	A50	Patil Kshitij Umesh	
21	A21	Raut Saurabh Vikas	51	A51	Warde Vaibhavi Ramesh	
22	A22	Panvalkar Ninad Sudarshan	52	A52	Wajge Yash Yogesh	
23	A23	Sable Priyansh Vandan	53	A53	Kamble Bhagyashri Babasaheb	
24	A24	Chavan Varunraj Balu	54	A54	Pătil Sahil Pralhad	
25	A25	Gangurde Chaitanya Mahesh	55	A55	Gurav Pratik Shashikant	
26	A26	Qureshi Md Raza Firoz	56	A56	Sangle Himanshu Mangesh	
27	A27	Takale Rupali Dhula	57	A57	Aher Swaraj Gulab	
28	A28	Kamble Om Satish	58	A58	Bhosale Athary Santaji	
29	A29	Tupe Shubham Ramesh	59	A59	Desai Vaishnavi Balkrishna	
30	A30	Shinde Rucha Ramesh		FUA		



. Attendance

A1 Batch

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A07	THAKUR HIMANSHI DEEPAK		1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18	90
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A30	SHINDE RUCHA RAMESH	1	1	- 1		1	1	1	1	_1	1	1	1	1	-1	-1		-	-		_	18	9
A31	CHANDAWALE ADITYA VIJAY		1	1	1	1	1	1	_1	_1	_1	_1	1	_	-1		1	-}	-:	-}	1	18	10
A32	PARAB PRERNA KAMLAKAR	1	1	1	1	1	_1	1	_1	1	_1	_1	-1	_1		1	1	-}		-}	-	19	9
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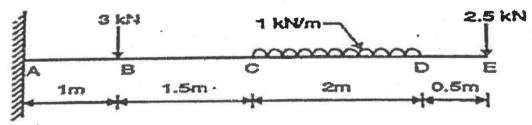
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Δ44	PATH, SIANTANU VIKAS		1	1		1	1	1	1		1	1	1	1	1		1	1	1		1	15	7
A45	KHATU SIDDHANT SACHIN		1	1	1	1		1	1	1		1	1	1		1	1	1		1	1	- 1	7
A46	SANAP VIDHITI BARASAHIN	1		1	1		1	1	1	1			1		1	1	1	1	-17	1	1	15	_
A47	NETAKE PREM KUNDALIK		1	1	1	1	1	1	1	1	1	1	1	1	- 1	1	1	1	1	1	- 5	13	_
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A50	PATIL ISSULTO UMESH	1	1			1	1	1	1	1	1	1	1	1	1	1			1	1	1	14	_
A51	WARDE VAIDUAVI RAMESII	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		_
A52	WAIGE YASII YOGESII	1		1	1	1		1	1	1	1		1	1	1		1	4	1	1	1	15	-
AS3	KAMBLE BHAGYASIGRI RABASAHEB	+																				C	_
AS4	PATO, SAHO, PRALHAD	1	1	1	1	1		1	1	1	1	1	1		1	1	1		1			1.5	_
A55	GURAY PRATIK SHASHIKANT	1	1		1	1	1	1	1	1		1	1	1	1		1	1	1	1	1	_	-
A56	SANGLE HIMANSHU MANGESH	1		1	1		1	1	1			1	1	1	1	1		- 1	1	1	7		_
A57	AHER SWARAL GULAB	1	1		1	1	1	2	1	1	1	1		1	1		1	1	1	1	1		
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A59	DESAL VAISHNAVI BALKRISHNA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	- 5	1	7	20	1 10

12. Assignments

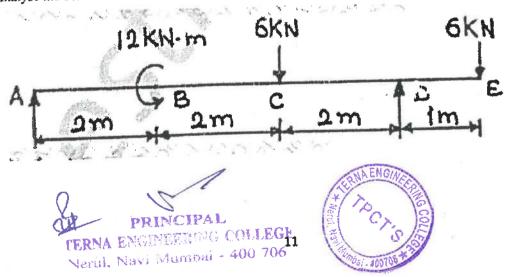
ALTER

12.1 Assignment No.1

1. Analyse the beam in STAAD-PRO and prepare a report.



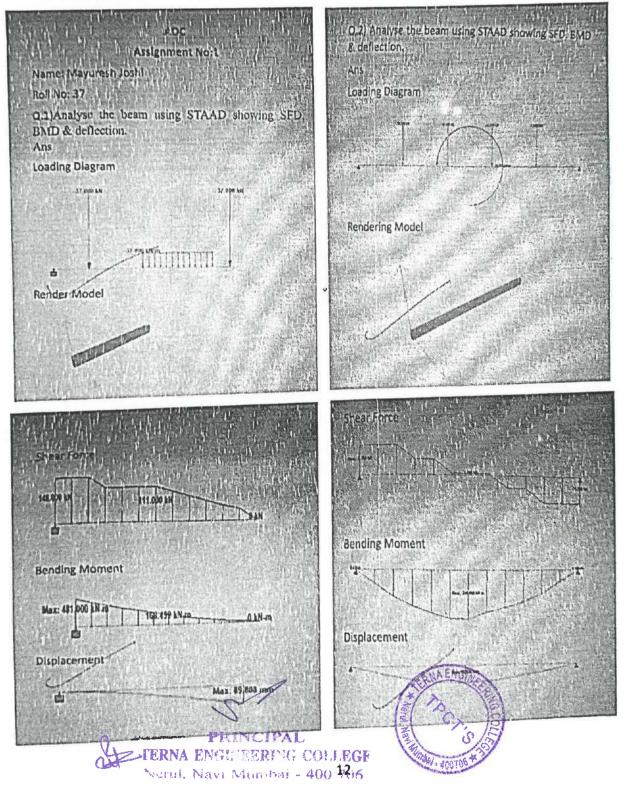
2. Analyse the beam in STAAD-PRO and prepare a report.

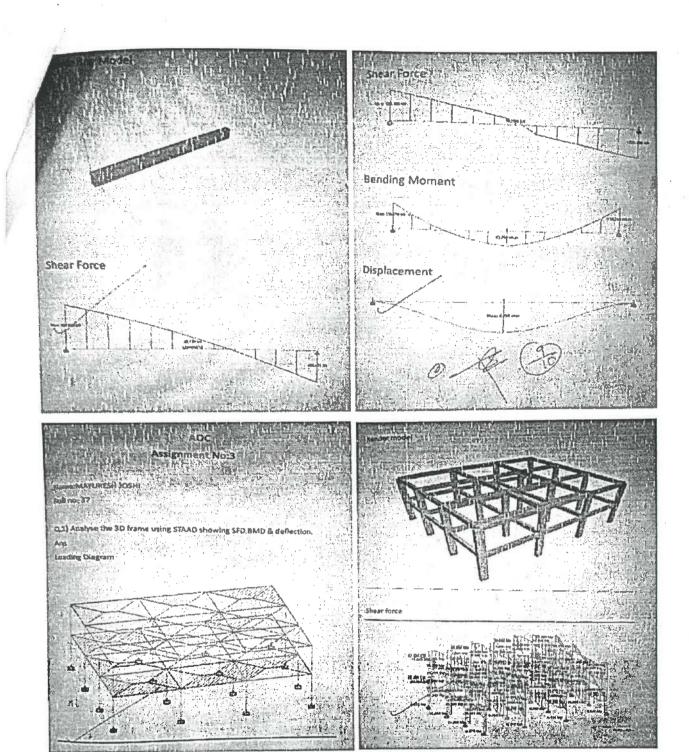


A fixed beam having span 6m carries a point load of 40kN at midspan. It also carries udl of 6kN/m over entire span. Analyse the beam using STAAD-PRO showing SFD,BMD & deflection.

4. A 10m long beam having one end hinged and other roller support carries a clockwise moment of 10kNm at midspan and four point loads of 20 kN each at every 2m. Analyse the beam using STAAD-PRO showing SFD.BMD & deflection.

12.2 Sample Submission of Assignment No. 1





13. Rubrics for Evaluation TW

Assignments will be assigned to students each of 10 Marks. Marks will be credited as below.

Sr. No.	Description	Marks
1.	Modelling	4
2.	Successful run of Staad file	4
3.	SFD & BMD with deflected shapes	2

Credits / Certification: Those who have 75% attendance are eligible for certification.



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AGR	731752223010	ULEGAM SARVESH POSAMALLU	1	2	1 2	8	4	1	1	å	Á	1	Ţ	18	1	1		100	7	1	7 7	7 1
A09	701782223013	MADACHANE SHARWARI SAGAR	3	2	2	7	3	1	7	7	4	1	1	6	1	1,			100	-+-	-+-	2 8
A30	TUTF2223015	DESA) ANIRUDDHA AJIT	3	2	ı	6	2	2	1	3	1	7	1	6	-	2			-			- 12
A11	TH7F2223019	MALAP AYUSH BILAGWAN	1	2	7	7	4	1	1,	8	1	1 2	2	7	1	1	-			-	-	-12
ASZ	T197F2223026	PALVE PRATAP SHAMRAO	3	2	7	7	4	2	1	8	1	2	2	7	-	1 7	-+-	-	-	-		-
All	TU7F2223024	DESHMUKH PRATIK PRATAP	3	7	2	-	3	1 2	1 2	7	3	+	1	-	-	+-		-	-	-	1 2	- 10
A14	TUTE2223028	SINGH KARAN BIJAYENDRAPRATAP	1	1	+	0	1	+	†	ó	1	2	+ •	6	1	+	+	-		1	1 2	18
A15		MAKHIJA MOHNISH SANDEEP	4	3	1 2	100	4	1	+	-	+	+	-	0	-	+-	+	- 0		-	-	- 13
		PARKAR TANVI VINAYAK	4	2	+	1000	-	2.5	+	8.5	+	3.5	+	9,5	-	3	-	15	1	1	2	- 12
A17	TU7F2223040	KURHADE CHAITALI	-	-	+	-	4	1 2	2	8	4	2.5	1	8.5	4	2.	5 2	8	5 4	1	2	- 83
A18		PASHTE VIRAI RAVINDRA	3	5	+	-	4	12	2	8	4	2	2	8	4	3	1	5	9 4	1	1 2	88
A19			13	2	+	1440	3	2	5	-7	4	2	2	8	4	2	2	- 8	13 4	2	2	173
		GHADAGE PREM PRATAP	3	2.5	-	10.75	3	2	2	7	4	2	2	143	4	2	2	8.8	B 4	1	2	û
A20	TU7S2324001	NUMTHEKAR AADITYA SANJAY	3	2	2	7	3	2	2	7	3	2	2	7	3	2	2	1/2	3	2	1	47
A21		The state of the s	4	2	2	8	4	2	2	8	4	2.5	2	8.5	4	2.5	2	8.	5 4	1	2	19
A22		THE STATE OF THE S	3	2	2	17	3	2.5	2	7.5	4	2	2	8	4	3	2	10	1	3	1 2	9
A23		C. IDBS (INT) (IND) TENTO	3	2	1	6	3	2	1	6	3	2	2	7	3	2	2	7	4	1 2	2	8
A74	TU7S2324004	1	3	2.5	2	7.5	4	2	2	A.	4	3	2	9	4	3	2	9	4	+	+	14
A25	TU752324005	GANGURDE CHAITANYA MAHESH	3	2	2	7	4	2	2	i ii	4	2	2	8	4	2	2	8	0	+	+	9
A26	TU752324006	QURESHI MD RAZA FIROŻ	4	4	2	10	4	3.5	2	9.3	4	3	2	9	4	3	2	9	4	+-	_	client
A27	TU7S2324007	TAKALE RUPALI DIJULA	4	2.5	2	3.5	4	2.5	2	8.5	4	3	2	9	4	3	5	200	-	+	1 2	110
A28	TU7\$2324008	KAMBLE OM SATISH	2	2	1	5	2	2	1	5	3	2	1	6	3		-	9		+	+-	10
A29	TU752324009	TUPE SHUBHAM RAMESH	4	4	2	10	4	4	2	10	4	3.5	2	100	-	2	1	6		+-	1	6
A30	TU752324010	SHINDE RUCHA RAMESH	3	3	2	Section 2	3	3	2	78	3		-	9.5	4	3	2	9	4	4	2	10
A31	TU752324011	CHANDAWALE ADITYA VIJAY	3	2	2	2000	3	2	2	7	-	2.5	2	7,5	3	2	2	7	3	2	2	7
A32	TU752324012	PARAB PRERNA KAMLAKAR	4	4	2	1000	4	3	2	-	3	2	1.5	6.5	3	2	2	62	3	2	2	2(7)
A33		MOKAL SANSKRUTI NARENDRA	4	3	2	Service A	4	-	_	39 P	4	3	2	9	4	3	2	9	1	4	2	10
A34	-	BIRJE JAYESH MAHESH	3		+	100000	1	3	2	.9 ·	4	3	2	33	4	3	2	9	4	3.5	2	9.5
A35		KINDRE SAKSHI ANANT	4	2	2	7,	3	Z.5	2	7.5	4	2	2	18]	4	3	2	9	4	4	2	10
$\overline{}$		VALVI VIPUL VIKRAM	+	2	2	8	4	2	2.5	8.5	4	2	2.5	8.5	4	3	2	9	4	33	Z	9.5
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		NANAVARE PRAGATI MADHUKAR	4	3	2	9	4	3	5	9	4	3.5	2	9.5	4	3	2	9	4	A	2	10
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	I		4	4	1	10	4	2.5	2	8.5	4	3	2	9	4	3	2	9	4	4	2	10
		KOLI ANISHA RAJESH	3	25	2	7.5	3	2.5	2	7.5	4	2,5	2	8.5	4	2.5	2	8.5	4	1	2	3
	TU7S2324021	IUVALE KUNAL NARESH	3	2	2	123	3	2.5	5	7.5	4	2	2	8	4	2	2	8	4	1	2	9
A42		SALUNKIE SOHAM KRISHNA	3	2	1	6	3	2	ı	6	3	2	1	6	1	2	2	17	3	1	1	672
443	TU752324023	INGALE KOMAL SANJAY	4	2	2	8	4	2.5	2	8.5	4	3	2	9	4	.3	2	9	4	,	2	(3)
A44	TU752324025	PATIL SHANTANU VIKAS	4	2	2	8	4	2.5	2	8.5	4	3	2	9	4	3	2	9	1	3	2	2
	TU752324026	KITATU SIDDHANT SACHIN	3	2	1	6	3	2	1	6	3	2	1	6	1	2	2	17	1	2		Service.
	10752324024	SANAP VIDHITI BABASAHEB	1	2	2	17	3	2	2	7	3	2	2	7	1	2	-	7	+		-	26
A47	TU752324027	RETAKE PREM KONDALIK	3	2	2	273	4	2	2	8	4	1	-	9	4	1	1	24.00	-	-		8
AA8	TU75232402H	DEIOHALE HRUSHIKESII SHIRHASII	3	2	1	6	3	2	2	7	3	1	1	12	-	-	-	9	+	1		333
A49	3H752924029		2	2	1	5	3	1	1	6	1		-	112.2	-	-	-	203	-	2	1	200
A50	TU752324032	PATIL KSHITIJ UMESH	1	2	1	6.	3	1	÷	7	1	1	+	153	-	-	1	21	3	2		
	19752324031		4	4	1	10	4	1	-	2000	-		1		-		-	10.3	4		3	3
A52	TU752324030	WAIGE VASH YOGESH	3	-	1	253	3	-	-	9	-	5.5	-	4.4	1	+	1	9	·	13	1	2.5
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AS8		BHOSALE ATHARV SANTAJI DESAI VAISHNAVI BALKRISHNA	77	-	-	Q		_		0			4	04	A/	10	1	a				0

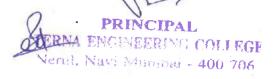
Nerul, Navi Mumbai - 400 706

Results

, No.	Roll No.	Name of Student	Status
1	A01	Verma Samar	Qualifie
2	A02	Mundhe Rohan	Qualifie
3	A03	Karhadkar Ananya Shreenand	Qualified
4	A04	Mhatre Tejas Chandrahas	Qualified
5	A05	Jundare Sujal Pravin	Qualified
6	A06	Shaikh Sahil Raju	Qualified
7	A07	Thakur Himanshu Deepak	Qualified
8			Qualified
9	A08	Elegam Sarvesh Posamallu	Qualified
	A09	Madachane Sharwari Sagar	Qualified
10	A10	Desai Aniruddha Ajit	Qualified
11	All	Malap Ayush Bhagwan	Qualified
12	A12	Palve Pratap Shamrao	Qualified
13	A13	Deshmukh Pratik Pratap	Not Qualified
14	A14	Singh Karan Bijayendrapratap	Qualified
15	A15	Makhija Mohnish Sandeep	Qualified
16	A16	Parkar Tanvi Vinayak	Qualified
17	A17	Kurhade Chaitali Harishchandra	Qualified
18	A18	Pashte Viraj Ravindra	Qualified
19	A19	Ghadage Prem Pratap	Qualified
20	A20	Kumthekar Aaditya Sanjay	Qualified
21	A21	Raut Saurabh Vikas	Qualified
22	A22	Panvalkar Ninad Sudarshan	Qualified
23	A23	Sable Priyansh Vandan	Qualified
24	A24	Chavan Varunraj Balu	Qualified
25	A25	Gangurde Chaitanya Mahesh	Qualified
26	A26	Qureshi Md Razu Firoz	Qualified
27	A27	Takale Rupali Dhula	Qualified
28	A28	Kamble Om Satish	Qualified
29	A29	Tupe Shubham Ramesh	Qualified
30	A30	Shinde Rucha Ramesh Chandaway Aditya Vijay	Qualified

GERNA ENGINEERING CERLARGE Verul, Navi Munibai - 400 706

32	A32	Parab Prema Kamlakar	Qualified
33	A33	Mokal Sanskruti Narendra	Qualified
34	A34	Birje Jayesh Mahesh	Qualified
35	A35	Kindre Sakshi Anant	Qualified
36	A36	Valvi Vipul Vikram	Not Qualified
37	A37	Joshi Mayuresh Nilesh	Qualified
38	A38	Nanavare Pragati Madhukar	Qualified
39	A39	Shinde Trupti Anil	Qualified
40	A40	Koti Anisha Rajesh	Qualified
41	A41	Juvale Kunal Naresh	Qualified
42	A42	Salunkhe Soham Krishna	Qualified
43	A43	Ingale Komal Sanjay	Qualified
44	A44	Patil Shantanu Vikas	Qualified
45	A45	Khatu Siddhant Sachin	Qualified
46	A46	Sanap Vidhiti Babasaheb	Qualified
47	A47	Netake Prem Kundalik	Qualified
48	A48	Dhobale Hrushikesh Subhash	Qualified
49	A49	Shirke Bhoomi Santosh	Qualified
50	A50	Patil Kshitij Umesh	Qualified
51	A51	Warde Vaibhavi Ramesh	Qualified
52	A52	Wajge Yash Yogesh	Qualified
53	A53	Kamble Bhagyashri Babasaheb	Not Qualified
54	A.54	Patil Sahil Pralhad	Qualified
55	A55	Gurav Pratik Shashikant	Qualified
56	A56	Sangle Himanshu Mangesh	Qualified
57	A57	Aher Swaraj Gulab	Qualified
58	A58	Bhosale Atharv Santaji	Not Qualified
59	A59	Desai Vaishnavi Balkrishna	Qualified



Feedback

https://docs.google.com/forms/d/e/1FAIpQLSdyREFZIt1oMSqSakjNyX16ck8yE0AT8HwBavs7oqm2k5ZQ3Q/viewform?usp=sf_link

ADD ON COURSE (Basics of Staad-Pro) FH-24

B I U oo T

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This form is for colle Department from Ja	cting feedback for the skill based musty 2024 to April 2024, Studen	d training program conduct	ted by the Civil Enginee	ring
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Name of Student	a.			
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A	Pro ADD ON COURSE was ber	neficial for you? *		
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C EXCELLENT				
VERY GOOD				
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C) FAIR	10		A DESCRIPTION OF THE PROPERTY	12
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was the STAAD Pro	curriculum compl	eted as planned?	•		
YES					
О NO					
	the transfer of the many services	7			
Did the STAAD pro	course was helpful	l for understandin	a structural See	innarina 3	
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O NO					
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Were your queries YES	iesolaed				
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Were you able to	practice along with	the instructor? *			
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How would you f	rate the course conf	tent in terms of b	eing easy to foll	ow? *	
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TERNA ENGINEERING COLLEGE

DEPARTMENT OF CIVIL INGINEERING

CERTIFICATE

OF COMPLETION FOR ADD -ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

Chakor Shubhani

This continues to awarded in recognition of the successful completing of the value added over sensor ADD ON COURSE (DDH) - COURSE), during benefits VIII from Fangary - April 2024

Mr Dharmesh Gangani FACULTY INCHARGE Dr. Privanka Salunkhe Hop ina

TERNA ENGINEERING COLLEGE DEPARTMENT OF COULT NIGHTLENG

CERTIFICATE

OF COMPLETION FOR ABID-ON COURSE (EXIT-COURSE) PROUDLY PRESENTED TO

Koli Sagarika Nitin

The fact, were consider two purpose of the error was a sergious at the ratio called a sergious Market what \$44.4, No. 100 Annu consideration Williams (see also 4, al. 20).

Sir Pharmesh Gangani FACLLIY INC STREET

Dr. frinanka Salanida Redi

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TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

OF COMPLETION FOR ADD (ON COURSE (EXIT (COURSE) PROUBLY PRESENTED TO

Badgujar Kalpeth

The periodestic a complete exception of the observation of the other short compared with APERONIC of Ref. (FAH. COURSE) with a Marchae VI. month Lummer - April 2015.

Mr Dharmesh Gangani FACULYI (NUKANGA or Privatal Salunkho

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TERNA ENGINEERING COLLEGE DEPARTMENT OF CHILLING NEIFING

CERTIFICATE OF COMPLETION FOR

ABD -ON COURSE (EXIT - COURSE)
PROUBLY PRESENTED TO

Dhansay Zaid Zafarullah

The constance of a federacon parties of the constal comparison of the constance of the cons

Mr Dharmesh Gangani Facel TY (ACRARGE

Dr. Printaka Salambio Hop

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TERNA ENGINEERING COLLEGE
DEPORTMENT OF CIVIL INGINIERING
CERTIFICATE

OF COMPLETION FOR AID ON COURSE (EXTE-COURSE) PROFIDE PRISENTED TO

Prasad Slubbani

The contained season which server on a the server selection of a server by the server broken broadly but of the kole (1524 - 4 OF ROLE BROKEN). Server VIII from Lander, April 20/4

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TERNA ENGINEERING COLLEGE DIPARTMENT OF CAVIL ENGINEERING

CERTIFICATE OF COMPLETION FOR

ADD-ON COURSE (EXIT - COURSE) PROCEDLY PRESENTED TO

Parab Rohan Rajan

The confidence is a white is a symbol of the reconstitute explanation of the ratio of local exercises APPHIN COURSE CART. COURSE domain

Mr Dharman Gangani

to remarka date with

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PRINCIPAL

TERNA ENCINEERY OF COLLEGE

Nerul, Navi Mumbai - 400 706



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TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING CERTIFICATE

OF COMPLETION FOR ADD -ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

Mane Sakshi Raju

That revaliants is arounded in properties a of the composite every lower of the value added course for ABBIANS COURSE (1981 - Col. Rol.) derings Semiger VIII from January - April 2021.

Mr Dharmeyh Gangani FACULTY INCHARGE

15 De Pripanke Satenbbe ma

TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING CERTIFICATE OF COMPLETION FOR

ADD -ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

Charan Alshuarya

 This permitted is a series for recognization of the event also completion of the take while consent appearance, Kalifall of the Rably during Setherwi MIN Britis Sandary - Apad 2024.

اسللن air Dharmesh Gengani

the for Preyanka Salunkh NOD

TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

OF COMPLETION FOR ADD -ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

Busara Anjali Soul!

ergine model course for ADMAIN CENTESP IS ALL ATO RESID ourse. menter will from languary - April 2014

1/15 Dr. Ivojanka Salunkb

TERNA INGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING CERTIFICATE

OF COMPLETION FOR ADD-ON COURSE (EXIT - COURSE) PROUBLY PRESENTED TO

Kedarl Aditya Mangesh

Place and control of other end consumption of the successful consistency of the Spinisters With them decreases - Appel 2013.

Mr Dharmesh Gangani FACLETT INCHAPAE

de Dr Priyanka Salonkhe

TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING CERTIFICATE OF COMPLETION FOR

ADD -ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

Keppula Ashok Satish

The commission of arrested in recognition of the some state complete a of the value while a state of the Value of the COURSE, (EXIT-170 URSE), dissing Summary VIII from January - April 2024.

مسليت Mr.Dharmish Gangani FAFCETT PSFHAROF

Dr. Priyanka Sahuulde 800

115

TERNA ENCOVEER WHILEGE Nerul, Navi Mumbai - 400 706

TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING CERTIFICATE

OF COMPLETION FOR ADD -ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

Shigh Ankit Raj Ashok

The contributes in an arded in prosperition of the encount of completion of the value mobil commeter ADD ON COURSE (EAST +COURSE), demag Same ter VIII from January - April 2024.

ميبيكي Mr Dharnicsh Gengani FACULTY INCHARGE

Att. De Pelyanka Salunk



TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL UNLESSTERING CERTIFICATE

OF COMPLETION FOR ADD ON COURSE (EXT) + COURSE) PROCESSA PRESENTED TO

Dabhade Vijay Sanjay

the to morning or an experience of the production of the same or an armonial f the shadow of the METON COURSERSHIP COURSE here, Somethe VIII man become April 2024

Me litharment Gragan SACLS TO SWIM ARKS

18 De Prinanka Salunkhe "Ina

TERNA ENGINEERING COLLEGE DEPORTMENT OF CIVIL ENGINEERING CERTIFICATE OF COMPLETION FOR

and-os course (extr-course) PROPOLY PRESENTED FO

Ghaware Sambodh

The confirmation of the property of the second of the property of the second of the se Saturday Office Species & April 1963

Me Dhaencan Gangini agent to be transfer

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TERNA ENGINEERING COLLEGE DIPARISHENT OF CIVIL ENGINEERS CERTIFICATE OF COMPLETION FOR ADD-ON COURSE (UXII - COURSE)

PROUBLY PRINCENTED TO Choudhari Hasmita Ganga

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160 De Priyanta Salunthe

TERNA ENGINEERING COLLEGE CERTIFICATE

OF COMPLETION FOR

ADD-ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

Chougale Parth Vinod

This parameter is secretary as expension of the recognized completion of the makes added a neterior ADD-ON COURSE A NIT COURSE, decide Semester VIII more because April 2017.

> TERNA ENGINEERING COLLEGE CERTIFICATE

OF COMMITTIONIOR

OF COMMITTIONIOR

PROCESTA PRESENTED TO

Patil Smalt Dinesh

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FACULTY INCHARGE

115 De Priyanka talunki Non

TERNA ENGINEERING COLLEGE DEPARTMENT OF CHILDS AND ASSESSED. CERTIFICATE OF COMBITTION FOR ADD -ON COLORSE (CXI) - COFRSE) PROCES V PROSESSED TO

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PRINCIPAL TERNA ENCINEERING COLLEGE Nerul, Navi Mumbai - 400 706



TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

OF COMPLETION FOR ADD -ON COURSE (EXIT - COURSE)

> PROUDLY PRESENTED TO Khedkar Prousy Prayin

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البيكين Mr Dharmash Gangani

1180 Dr. Priyanka Salenkh HOD

TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING CERTIFICATE

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Mr Dharmenh Gangani Facs LTT INCHAPOT

110 Dr. Privaska Salunkho

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OF COMPLETION FOR ADD -ON COURSE (EXIT - COURSE) PROUDLY PRESENTED TO

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11 De Priyanka Salunkhe

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Mr. Dharmesh Gangani

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Mr Dhormedt Gangant SACLE IV INCHASOR Or Province Submich.

Dr. Prlyanka Salunkhe



TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

Report on

ETABS

Enrolled Students

T.E. and B.E. Civil Engineering

Academic Year:

2023-2024

Organized by

T&P Cell, Dept. of Civil Engineering, TEC
In Association with

Department of Civil Engineering, Nerul, Navi Mumbai



8

Confluence Trainings, Nanded.

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Nerul, Hava Municai - 400 706



CONTENT

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1. Meeting, Approval

1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

01.11.2023

With reference to meeting held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct Value added courses to provide knowledge to students regarding for vital subjects of our discipline. The following faculty members were present in the meeting conducted on 01 November 2023 at Civil HOD Cabin to finalize the Value added course to be offered for this year,

The HOD and the staff members concluded the following Value Added Courses for the academic year 2023-2024

SL. No.	Name of Value Added Course	Semester	Hours	Staff Incharge
1.	ETabs	V & VII	40	Ritesh Tandekar

In the meeting it was decided to prepare syllabus & schedule of the program by the staff incharge within a week from the date of meeting.

- 1) Dr. Priyanka Salunkhe (HOD) & Add-on Incharge
- 2) Jamaluddin M. (Faculty)
- 3) Ritesh Tandekar (Course Coordinator)
- 4) Poonam Patil (APC)
- 5) Pradeep Sonwane (Faculty).

Dr. Priyanka Salunkhe Dept. of Civil Engg.

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FERNA ENGINEERING COLLEGE
Nerul, Navi Munibal 400 706



Regd. No. E-91, (Osmanabad) Dated 30-09-80

DIE INSTI, CODE: 3190

TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Attiliated to University of Mumbal)

Plot No. 12, Sector 22, Opposite Rallmay Station, fearul (94), Navi Mumbel, 450756, Ph. 491 22 51125448, Fac No. 492 22 61115400 Web Www.fernsengg.or.in .

Date: 01/11/2023

To.

The Principal

Tema Engineering College,

Neral, Navi Mumbai - 4000706

Subject: - Regarding Permission for conducting Skill Based Learning program

Respected Sir.

To make the students industry ready and feedback received by students, we have decided to conduct Add on course on software's ETabs, Tekla and Staad-Pro in Association with Confluence Training, Nanded, during the academic year 2023 - 24. I request you kindly to provide the permission to conduct the same. The selected course will be useful to students for proficiency in above software.

Kindly provide permission to do the same.

Thanking You.

Yours Faithfully.

Mr. Jamaluddin Maghrabi

AOC Incharge

HOD

Ween, Navi Murrous - 40% 706



TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

1. Title of the course

: Course on ETab

2. Objective of the course

: To make student learn ETab Software which is required for preparing Model an RCC structure with Analyze and Design Also Create Detailed drawing and material listing using CSI Detailer.

3. Prerequisite

: Basics of RCC Design

4. Beneficiary

: Students and Faculties

5. Date & Duration of the course: 29.11.2023 to 20.01.2024

6. No of hours required

: 40 Hours

7. Internal Resources

: Ritesh Tandekar

8. Internal Assessment

: Assignment

9. Course Registration fees

10. Contents of the course

: Enclosed

11. Credits / Certification

: Those who have 75% attendance and scored above

60% eligible for certification.

12. Venue

: Online

Course Coordinator

Dept. of Civil Engg.

PHEER COLLEGE Nefal, Navi Mundai - 400 706



TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

CIRCULAR

All the students of semester, V & VII and faculties of department of Civil Engineering Terna Engineering College, Nerul, Navi Mumbai, are hereby informed to enroll their names for add on course "ETabs".

COURSE FEATURES:

Course Duration

: 40 Hours

Beneficiary

Students & Faculties

Certificate

: Yes

Location

: Online

Schedule

: 29.11.2023 to 20.01.2024



HOD

Dept. of Civil Engg





2.0 About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and it is located at Nerul, Navi Mumbai on a beautiful 3-acre campus. The institute is affiliated to University of Mumbai, appreved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG, 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote centre of IIT Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

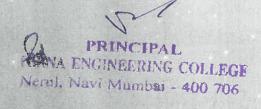
2.1 About Department:

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to promote the disciplines of Planning, Design, Construction, Operation,

Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly quantied and dedicated faculty are recruited and they are always on their toes to guide the students, form the backbone of the department.

Key Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Engineering Geology, Civil Computer Laboratory, Surveying Laboratory, Hydraulies and Fluid Mechanics Laboratories
- Consultancy Services Offered and Fully Equipped with Major Facilities Like Fully Automatic Compression Testing Machine 2000 kN (NABL Accredited), Fully Automatic Universal Testing Machine (UTM 100 Ton- NABL Accredited), Fully Automated Total Station for Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing





- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas. Power Projects
- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures. Pavement Design & Analysis, Geotextile Materials for Soil Stabilization, Geotechnical Engineering, Remote Sensing & GIS
- Active Mentoring Processos for Continuous Assessment in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- Expert Lectures by Industry Experts
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- Patents, Designs and Copyright Development
- Achieved 100 % students intern during winter vacations (2019-2020) in renowned organizations like Airport Authority of India (AAI), Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), Rashtriya Chemical Fertilizers (RCF), American Concrete Institute and so many.

3.0 About Course

An add on course of training of ETabs software has been introduced by the Department of Civil Engineering, Terna Engineering College, Navi Mumbai for T.E & B.E(Civil) students. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 40 hrs.

4.0 About Consultancy

Confluence Training Initiative (CTI) was started in year 2021 with aim of providing affordable access to high-quality training in civil engineering. With a very small and highly experienced team we have conducted multiple training programs in Pune & Mumbai and planned to keep on serving in the future. Following are some key features of our add-on training programs.

- ✓ Experienced resource personnel.
- ✓ Project based learning assignment on real life projects.
- ✓ Free additional online learning courses on E-Tabs.
- ✓ Traceable certificates with QR codes to curb forgery and more

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	SCHEDULE	OR ETABS TRAINING PR	OGRAM
× 2	Day	Time	4 (++(1,12) +
Date		4.00 PM to 8.00 PM	Module No. 1
9-Nov-23	Wednesday	4.00 PM to 8.00 PM	Module No. 2
2- Dec-23	Saturday		Module No. 3
4- Dec-23	Monday	4.00 PM to 8.00 PM	Module No. 3
5- Dec-23	Wednesday	4.00 PM to 8.00 PM	Module No. 4
)- Dec-23	Saturday	4.00 PM to 8.00 PM	
6-Jan -24	Tuesday	4.00 PM to 8.00 PM	Module No. 5
The second secon	Wednesday	4.00 PM to 8.00 PM	Module No. 6
7-Jan -24	The second secon	4.00 PM to 8.00 PM	Module No. 6
8-Jan -24	Thursday		Module No. 7
19-Jan -24	Friday	4.00 PM to 8.00 PM	Module No. 7
20-Jan -24	Saturday	4.00 PM to 8.00 PM	TAYOUTH TAY

6.0 Syllabus

	Course contents	Hours						
Module	Introduction to ETABS	4						
	Industry application, feature, limitations etc (L1)							
	Basic configuration, initial settings and Introduction to GUI							
	(L1)							
	Introduction to Menu-bar, tool bar and page setup (L1)							
2	Initial Modeling in ETABS	4						
	Grid creation for uniform grid system (L2)							
	Creation of non-uniform grid system (L2)							
	Importing dxf file from AutoCAD for grid creation (L2)							
	2 4 4 (F) A 14 (F)	X						
3	Modeling of RCC frame building in ETABS	8						
3	Understanding Story data and grid data. (L2)	8						
3	Understanding Story data and grid data. (L2) Creation of beams, columns, slab and wind panels in ETABS	8						
3	Understanding Story data and grid data. (L2)	8						
3	Understanding Story data and grid data. (L2) Creation of beams, columns, slab and wind panels in ETABS (L5) Manual dead Load calculation as per IS 875 part 1 (L3) Live load calculations per IS 875 Part 2 (L3)							
3	Understanding Story data and grid data. (L2) Creation of beams, columns, slab and wind panels in ETABS (L5) Manual dead Load calculation as per IS 875 part 1 (L3)							
3	Understanding Story data and grid data. (L2) Creation of beams, columns, slab and wind panels in ETABS (L5) Manual dead Load calculation as per IS 875 part 1 (L3) Live load calculations per IS 875 Part 2 (L3) Wind load calculation as per IS 875 Part 3. Generation of wind load using ETABS (L3)							
3	Understanding Story data and grid data. (L2) Creation of beams, columns, slab and wind panels in ETABS (L5) Manual dead Load calculation as per IS 875 part 1 (L3) Live load calculations per IS 875 Part 2 (L3) Wind load calculation as per IS 875 Part 3. Generation of wind							

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	Analysis and Design	4
	Running analysis, Error and warning removal in ETABS (L5)	
	Interpreting analysis results & Generating shear force and	
	bending moment diagrams (L5)	
	Design and optimization of RCC element. (L5)	
CSLD	etailer	
5	Introduction to CSI Detailer	4
	Applications, feature, advantages over other CAD tools and	
	limitations (L2)	ME
6	Detailing of RCC structure	8
	Creation of Grids, rafters, Purlins, rafter end connections, Base plate, Pad Footing, Cladding Gutters etc. (L4)	
7	Post Processing	8
	Clash detection and removal, general arrangement drawing (GA drawing), Assembly Drawing, Adding revisions and prints (L4)	

7.0 Course Objective & Course Outcome

After completion of the course the student will be able to analyze and design the structure in ETabs.

7.1 Course Objective

- 1. Familiarize with GUI of ETABS, CSI Detailer
- 2. Model an RCC structure with ETABS interface
- 3. Analyze and Design RCC structures using ETABS
- 4. Design Share wall and other important structural element
- 5. Create Detailed drawing and material listing using CSI Detailer

7.2 Course Outcome

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

- 1. Familiarize with GUI of ETABS, CSI Detailer
- 2. Model an RCC structure with ETABS interface
- 3. Analyze and Design RCC structures using ETABS
- 4. Design Share wall and other important structural element
- 5. Create Detailed drawing and material listing using CSI Detailer

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7.3 Program Outcome

PO 1: - Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2: - Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

PO 3: - Design development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4: - Conduct investigations of complex problems: Use rescarch-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5: - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6: - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice:

PO 7: - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8: - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9: - Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10: - Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11: - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12: - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcome

PSO 1: - Graduates will be able to plan, analyse, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.

PSO 2: - Graduates will be able to use different software related to Civil Engineering for developing skills required by the industry.

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8.0 CO, PO & PSO Mapping

	Course contents	CO	PO	FSO
Module_	Introduction to ETABS	1,2,3,4	1,2,3,4,5,6,7,	1,2
			8,9,10,11,12	
2	Initial Modeling in ETABS	1,2,3,4	1,2,3,4,5,6,7,	1,2
			8,9,10,11,12	
3	Modeling of RCC frame building in	1,2,3,4	1,2,3,4,5,6.7,	1,2
	ETABS		8,9,10,11,12	
4	Analysis and Design	1,2,3,4	1,2,3,4,5,6,7,	1,2
			8,9,10,11,12	
5	Introduction to CSI Detailer	1,2,3,4,5	1,2,3,4,5,6,7,	1,2
			8,9,10,11,12	
6	Detailing of RCC structure	1,2,3,4,5	1,2,3,4,5,6,7,	1,2
			8,9,10,11,12	
7	Post Processing	1,2,3,4,5	1,2,3,4,5,6,7,	1,2
			8,9,10,11,12	

9.0 List of Students

BE Student List

ir.	Full Name	TUF ID	Sr. No	Full Name	TUFID
1	Vaibhay Gholap	TU7F2021001	24	Mansi Khandekar	TU7F2021052
2	Aditya Shahasane	TU7F2021004	25	Palash Dipen Patel	TU7F2021025
3	Pranjal Mukherjee	TU7F2021005	26	Hrishikesh Dongre	TU7S2122001
4	Anurup Killedar	TU7F2021007	27	Brijesh Duduka	TU7S2122002
5	Pranav Pravin Khedkar	TU7F2021009	28	Aditya Milind Jadhav	TU7S2122003
6	Sahil Patil	TU7F2021010	29	Keshar Sanjay Lawane	TU7S2122004
7	Vismay	TU7F2021011	30	Rohit Yashwant Bedekar	TU7S2122005
8	Srushti Mali	TU7F2021014	31	Sahil Mahanand Pawar	TU7S2122007
9	Tejas Suryawanshi	TU7F2021015	32	Sahil Shashikam Wayal	TU7S2122008
10	Hasmita Ganga Chaudhari	TU7F2021019	33	Rohan Rajan Parab	TU7S2122006

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11	Anjali Bhusara	TU7F2021020	34	Shivani Suhas Pomendkar	TU7S2122010
12	Vijay Dabhade	TU7F2021032	35	Satyajeet Dubcy	TU7S2122013
13	Shubham Prasad	TU7F2021033	36	Kartik Jagadish Siddamal	TU7S2122014
14	Aditya mangesh kedari	TU7F2021034	37	Yogesh Malvani	TU7S2122015
15	Sakshi Raju Mane	TU7F2021036	38	Tejashree Pawar	TU7S2122017
16	Sagarika Nitin Koli	TU7F2021037	39	Kajal Ashok Gaikar	TU7S2122018
17	Kalmesh Rajendra Badgujar	TU7F2021038	40	Siddhi Pradeep Gharat	TU7S2122019
18	Dhanshree patil	TU7F2021040	41	Shubhangi Dnyaneshwar Phadtare	TU7S2122020
19	Zaid Dhansay	TU7F2021042	42	Shweta Anil Chavan	TU7S2122022
20	Aman Ravindra Pathak	TU7F2021044	43	Robit Subas Matekar	TU7S2122023
21	Nimish gangaram loke	TU7F2021045	44	Pratik Dinkar Gaikwad	TU7\$2122024
22	Komal Gondke	TU7F2021048	45	Jadhav Sakshi Sadashiv	TU7S2122026
23	Tanishq Sudhakar Kharat	TU7F2021049	46	Junaid Wani	TU7F1920038

TE Student List

Sr. No	Full Name	TUFAD	Sr. No	Fult Name	TUFID
1	Tambde Kshitij	TU7F2122001	24	Prachi Walhekar	TU7F2122042
2	Atharva chikane	TU7F2122003	25	Harsh Shinde	TU7S2223001
3	Aaditya Shinde	TU7F2122006	26	Aaryan Chirlekar	TU7S2223003
4	Priyesh Kolte	TU7F2122007	27	Soham mankumbare	TU7S2223006
5	Vinod Chinnarathod	TU752122009	28	Khushaal Sonawane	TU7S2223005
6	Ghonge Viraj	TU7F2122010	29	Aryan Ambhore	TU7S2223004
7	Vivek Ingle	TU7F2122011	30	Anish Ghadi	TU7S2223008
8	Sai Mhatre	TU7F2122012	31	Vaibhave : Keni	TU782223010
9	Shraddha deshniukh	TU7F2122013	32	Shailesh bowlekar	TU782223025
10	Janardan Bodke	TU7F2122015	33	Pranav Palekar	TU782223012
11	Vipul Mumbaikar	TU7F2122017	34	Gauri Dhumal	TU7S2223014
12	Sparsha Padghan	TU7F2122018	35	Shriya Jadhav	TU782223015
13	Kolekar mahesh	TU7S2223024	36	Soham Patil	TU7S2223016
14	Manay Mangle	TU7F2122025	37	Ayush Singh	TU7S2223018
15	Ahiwar Shubham	TU7F2122022	38	Vaishnayi Dombare	TU782223020
16	Shinde Neeraj	TU75F2122021	39	Sakshi Ranshur	TU782223021
17	Vedani Tambe	TU7F2122028	40	Pranjali Gharat	TU782223022
18	Gajendra Gavit	TU7F2122030	41	Mayur Kondikire	TU782223024
19	Tanmay Kamble	TU7F2122031	42	Sejal Yedurkar	TU7S2223025
20	Swapneel Lubal	TU7F2122032	43	Akash Chorge	TU7S2223026
21	Nikhil karbhari	TU712122034	44	Vincet More	TUS72223029

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22	Shruti Shirsat	TU7F2122036	151	Relat Lande.	Lauranaaaanaa
22	Aichwaran Mand, H	In the same of the		rent range.	TU7S2223032
184	Aishwarya Nandedkar	TU/F2122040	46	Sanika Gaokar	TU7S2223034

10.0 Attendance

BE Student List

Sr. No	Full Name	Nov	2. Dec	Dec	bec Dec	9. Dec	io- Jan	Jan	18- .fn#	19.	20- Jan	AVG
1	Vaibhay Gholap	p	P	Ia.	A.	l p	Α	p	p.	p	Р	90
2	Aditya Shahasane	l,	P	1)	1 19	i.	P	P	p	Tr.	P	80
3	Pranjal Mukharjee	1,	p	P	p	133	p	p	p.	l p	P	100
4	Anurup Killedar	p	A	P	1	Λ	p	13	P	p	12	100
5	Pranav Pravin Khedkar	p	P	P	19	P	P	1	P	P	-	80
6	Sahil Patil	p	P	P	A	A	A	A	p	p	P	1.00
7	Visniay Vinay	p	p	p	A	P	P	A	P	p	12	60
8	Srushti Mali	p	P	p	A	p	P	P	-	1	<u> </u>	80
9	Tejas Suryawanshi	j,	p	A	P	p	p	P	A	A =	P	70
10	Hasmita Ganga Chaudhari	P	þ	A	p	p	p		A	1	P	80
11	Anjali Bhusara	P	p	A	p	p	-	P	P	P	12	90
12	Vijay Dabhade	p	þ	p	p	13	A. p		P	P	P	80
13	Shubham Prasad	P	Р	p	p .	p		P	p	P	P	100
14	Aditya mangesh kedari	P	p	Λ	A	p	A	Ŋ.	P	Įī.	Þ	80
15	Sakshi Raju Mane	P	p	P	A	p c	P	р	Р	12	Р	80
16	Sagarika Nitin Koli	P	3)	p	p	p	p i	P	P	P	P	90
17	Kalpesh Rajendra Badgujar	p	p	p	p			Р	1,	13	7	100
18	Dhanshree patil	p	Р	P	A	P	A	A	P	1.	P	80
19	Zaid Dhansay	P	þ	P	p	A	A	P	P	P	P	70
20	Aman Ravindra Pathak	p	p	P	1)	P	A	A	A	А	Р	60
21	Nimish gangaram loke	P	1>	A		P	P	P	P	P	P	100
22	Komal Gondke	p	p.	P	P	A	1)	A	b	1	þ	70
23	Tanishq Sudhakar Kharat	p	P		P	P	A	A	A	A	P	60
24	Mansi Khandekar	p p	P	P	P	P	P	P	A	A	P	80
25	Palash Dipen Patel	P	P	b b	Р	P	Р	P	I,	P	P	100
26	Hrishikesh Dongre	p			P	P	P	12	P	P	P	100
27	Bríjesh Duduka	p	P	p	P	P	P	þ	Р	Ъ	P	100
28	Aditya Milind Jadhav	Р	P	P	P	P	P	P	P	p	p	100
29	Keshar Sanjay Lawane		P	12	P	P	Р	Р	Ъ	P	p.	100
30	Rohit Yashwant Bedekar	P	P	b	P	P	P	Р	A	A	P	80
31	Sahil Mahanand Pawar	P	P	P	P	P	P	P	29	P	P	100
32	Sahil Shashikant Wayat	p	p	A	Ì.	A	b	A	þ	p	P	70
33	Rohan Rajan Parab	P	P	b	P	Р	P	P	P	Р	P	100
34		P	P	Р	Р	p	P	P	P	P	P	100
	Shivani Suhas Pomendon	P	P	P	Hein	HITER		A	P	A	P	80

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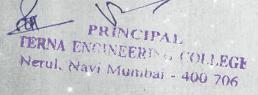
Nerul, Navi Mumbai - 400 706

14

35	Satyajeet Dubey	P	p	12	1 17	11	P	11	I p	l p	p	100
36	Kartik Jagadish Siddamal	P	р	P	11	· P	þ	P	11	A	12	90
37	Yogesh Malvani	P	Р	P	13	Tp.	P	10	iP	Tp.	p	100
38	Tejashree Pawar	P	p	P	P	P	p	P	P	13	13	100
39	Kajal Ashok Gaikar	p	Р	13	p.	12	Р	p	þ	A	P	90
40	Siddhi Pradeep Gharat	I p	р	1	þ	P	b	10	p	p		1
41	Shubhangi Dnyaneshwar Phadtare	P	p	b	l p	10	13	13	P	P	P	100
42	Shweta Anil Chavan	þ	P	l p	1	p	12	-	1 "		P	100
43	Rohit Suhas Matekar	Р	I p	p	1	13	P	P	P	12	P	100
44	Pratik Dinkar Gaikwad	P	P	P	1 19	12.		P	P	P	P	100
45	Jadhay Sakshi Sadashiy	þ	P	1	-	1	A	P	A	A	P	70
46	Junaid Wani	p		1	P	12.	1).	P	l ₂	1,	1.	100
	Stellary While	P	Ь	1 b	11	IL.	IA	A	P	1)	P.	- 80

TE Student List

Sr. No	Full Name	39- Nov	2- Dec	4- Dec	6- Der	Dec	l le- Jan	17- Jan-	18- Jan	1%. Jan	20. Jun	AYC
1	Tambde Kshitij	р	P	p	Р.	P.	P	A	P	p	þ	
2	Atharva chikane	P	p	p	p	P	p.	A	P	p	-	90
3	Aaditya Shinde	P	A	P	P	p	A	1	P.	+ -	12	90
4	Priyesh Kolte]>	P	P	p	p	A	A	P	P	12	70
5	Vinod Chinnarathod	l p	р	P	P	þ	P P	p.	p	+	P	90
6	Ghonge Viraj	p	P	12.	P	p	P	11		P	12	100
7	Vivek Ingle	T _P	A	A	P	A	A	P	A	A	P	80
8	Sai Mhatre	р	P	p	P	P	P	P	P	P	1)	60
9	Shraddha deshmukh	p	P	P	p	p	P	P	P	A	A	80
10	Janardan Bodke	pr	p	P	P	P	p	P	P	P	P	100
11	Vipul Mumbaikar	р	p	þ	P	p	p	1	A	Р	P	90
12	Sparsha Padghan	P	P	P	p	P	12	A	A	j.	p	80
13	Kolekar mahesh	P	P	p	P	P	p	p	P	P_	P	100
14	Manav Mangle	A	p	P	P	p.	l ₂	A	P	L ₂	P	90
15	Ahiwar Shubham	P	p	P	p	P	P	A	A	P	1	70
16	Shinde Neeraj	p	P	p	j)	P	P P	P	A	P	b.	90
17	Vedant Tambe	P	p	þ	p	þ		P	A	P	P	90
18	Gajendra Gavit	р	p	p	1)	1.	þ	P	12	P	P	100
19	Tanmay Kamble	P	p	p		P	A	1,	12	P	P	90
20	Swapneel Lubal	p	p	A	P	1	A	P	P	P	P	90
21	Nikhil karbhari	p	1)	P.	P]3.	A	1,	p	A	13	70
22	Shruti Shirsat	p	P	-	19	P	p	1,	1	Α.	P	90
23	Aishwarya Nandedkar			P	P	ľ,	10	P	17	Α	P	90
24	Prachi Walhekar	A	A	P	P	P	1	P	17	A	P	70
25	Harsh Shinde	P		P	þ	P	P	P	A	Α	P	80
	- Americaning	11	P	P	P	p.	Р	P	A	2	P	90





26	Aaryan Chirlekar	1 p	P	P	P.	l p	1 53	£ p	IA	A	P	. 500
27	Soham mankumbare	р	р	p.	Y	P	P	P	P	17	p	. 80
28	Khushaal Sonawane	p.	12	p	P	p	1	1	12	P	13	100
29	Aryan Ambhore	· P	p	p	P	11	- 1	P	À	1,	13	100
30	Anish Ghadi	p	13	Р	p	13	p	P	A	12	p	90
31	Vaibhavee Keni	P	P	P	P	10	P	p	A	1	p	90
32	Shailesh bowlekar	P	p	р	р	P	P	P	P	IA		80
33	Pranav Palekar	p	p	P	P	p	p	p	17	1	P	. 90
34	Gauri Dhumal	p	P	P	P	p	р	12	-	A	p-	90
35	Shriya Jadhay	р	A	A	A	l p	P	A	A	A	P	80
36	Soham Patil	P	12	A	A	1	-	P	P	P	P	70
37	Ayush Singh	- 12	p	P	17	A	P	P	þ	P	P	_ 70
38	Vaishnavi Dombare	p	P	Р	IX	P	P	. P	Α	IA	P	-80
39	Sakshi Ranshur	p	P	P	P	1	P	P	P	1 15	† P	90
40	Pranjali Gharat	р	p.	p .	-	P	13	P	P	12	P	100
41	Mayur Kondikire	p	12	P	Λ	A	1	Р	P	P	İż	80
42	Sejal Yedurkar	P	T _p	-	1,	P	12	P	P	P	P	100
43	Akash Chorge	p.	P	P	P	A	P	P	1,	P	P	90
44	Vincet More	p	1	P	17	P	b	P	1	Λ	b	90
45	Rohit Tambe	P	P	P	P	P	A	P	P	P	P	90.
46	Sanika Gaokar		P	P	P	1,8	P	P	A	P	P	- 90
	THE CHOKAI	i þ	1.	P	P	P	P	Α	15	P	P	90

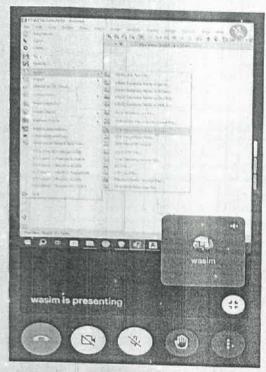
11.0 Online Session (Link & Screenshot)

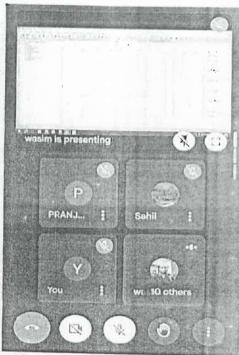
Link for online session: https://meet.google.com/qqa-idme-mcz

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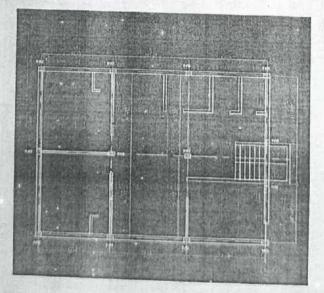
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12.0 Assignments and Submission



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10

13.0 Rubries

Assignment will be assigned to students each of 25 Marks. Marks will be credited as below.

Sr. No.	Description	Marks
1,	Modelling	10
2.	Understanding	10
3,	Attendance	5

14.0 Evaluation

Practical examination was carried out based on the types of Assignment questions. The results are as follows

BE Students

Sr. No	Name of student	Modeling (10)	Understanding (10)	Attendance (5)	TOTAL (25)
1	Vaibhay Gholap	7	4	4	15
2	Aditya Shahasane	8	8	5	21
3	Pranjal Mukherjee	4	A CONTRACTOR OF THE PARTY OF TH	4	15
4	Anurup Killedar	7		4	- 18
5	Pranav Pravin Khedkar	8	7	5	20
6	Sahil Patil	7		3	14
7	Vismay	7	6	4	17
8	Srushti Mali	5	5	4	14
9	Tejas Suryawanshi	7	S	4	16
10	Hasmita Ganga Chaudhari	7	5	4	16
11	Anjali Bhusara	7		3	17
12	Vijay Dabhade	9	7	4	20
13	Shubham Prasad	7	7		17

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14	Aditya mangesh kedari	8	8	4	20
15	Sakshi Raju Mane	9	8		
16	Sagarika Nitin Koli	7		3	20
17	Kalpesh Rajendra Badgujar		9	3	19
18		7	8	4	19
	Dhanshree patil	5	4	4	13
19	Zaid Dhansay	6	4	4	14
20	Aman Ravindra Pathak	7	7	4	18
21	Nimish gangaram loke	5	4	3	12
22	Komal Gondke	4	5	4	13
23	Tanishq Sudhakar Kharat	7	7		18
24	Mansi Khandekar	7	7	4	-18
25	Palash Dipen Patel	7	7		
26	Hrishikesh Dongre			4-311	1.8
27		7	7	4	1.8
	Brijesh Duduka	7	7	4	18
28	Aditya Milind Jadhav	7	7	4	18
29	Keshar Sanjay Lawane	7	?	4	18
30	Rohit Yashwant Bedekar	7	7	4	18
31	Sahil Mahanand Pawar	5 -	5	4	14
32	Sahil Shashikant Wayal	7	7	4	18
33	Rohan Rajan Parab	7	7	4	
34	Shivani Suhas Pomendkar	9	8		18
35	Satyaject Dubey	7	8	5	22
36	Kartik Jagadish Siddamal			4	19
37		8	8	5	21
38	Yogesh Malvani	7	6	3	16
	Tejashree Pawar	6	6	3	15
19	Kajal Ashok Gaikar	9	7	4	20

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Siddhi Pradeep Gharat	8	8	4	20
Shubhangi Dnyaneshwar Phadtare	6	6 2	4	16
Shweta Anil Chavan	7	7	3	17
Rohit Suhas Matekar	7	6	4	17
Pratik Dinkar Gaikwad	4	5	3	12
Jadhav Sakshi Sadashiv	6	7	3	16
Junaid Wani	6	7	3	16
	Shubhangi Dnyaneshwar Phadtare Shweta Anil Chavan Rohit Suhas Matekar Pratik Dinkar Gaikwad Jadhav Sakshi Sadashiv	Shubhangi Dnyaneshwar Phadtare Shweta Anil Chavan Rohit Suhas Matekar Pratik Dinkar Gaikwad Jadhav Sakshi Sadashiv 6	Shubhangi Dnyaneshwar Phadtare Shweta Anil Chavan 7 7 Rohit Subas Matekar 7 6 Pratik Dinkar Gaikwad 4 5 Jadhay Sakshi Sadashiy 6 7	Shubhangi Dnyaneshwar Phadtare Shweta Anil Chavan 7 7 3 Rohit Suhas Matekar 7 6 4 Pratik Dinkar Gaikwad 4 5 3 Jadhay Sakshi Sadashiy 6 7 3

TE Students

Sr. No	Name of student	Modeling (10)	Understanding (10)	Attendance (5)	TOTAL (25)
l	Tambde Kshitij	7	4	4	15
2	Atharva chikane	8	8	5	2.1
3	Aaditya Shinde	5	4	5	14
4	Priyesh Kolte	7	7	4	18
5	Vinod Chinnarathod	8	7	5	20
6	Ghonge Viraj	7	4	4	15
7	Vivek Ingle	7	3	4	14
8	Sai Mhatre	. 8	6	4	18
9	Shraddha deshunukh	7	5	4	16
10	Janardan Bodke	7	5	4	16
11	Vipul Mumbaikar	7	7	3	17
12	Sparsha Padghan	9	7	4	20
13	Kolekar mahesh	7	7	3	17
14	Manay Mangle	7	4	2	13
15	Ahiwar Shubham	9	8	3	20

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16	Shinde Neeraj	7	9	3	19
17	Vedant Tambe	7	8		19
18	Gajendra Gavit	7	8		19
19	Tanmay Kamble	8	7	5	20
20	Swapneel Lubal	5	3	4	12
21	Nikhil korbhari	7	7.	4	18
22	Shruti Shirsat	7	7	4	18
23	Aishwarya Nandedkar	3 .	7	4	14
24	Prachi Walhekar	7	7	4	18
25	Harsh Shinde	7	7	4	18
26	Aaryan Chirlekar	7	7	4	1.8
27	Soham mankumbare	7	7	4	1.8
28	Khushaal Sonawane	7	7	4	18
29	Aryan Ambhore	7	7	4	18
30	Anish Ghadi	7	7	4	18
31	Vaibhavee Keni	7	7	4	- 18
32	Shailesh bowlekar	7	7	4	18
33	Pranav Palekar	7	7	4	18
34	Gauri Dhumal	9	8	5	22
35	Shriya Jadhav	6	3	4	13
36	Soham Patil	5	4	5	14
37	Ayush Singh	7	6	3	16
38	Vaishnavi Dombare	6	6	3	15
39	Sakshi Ranshur	9	7	4	20
40	Pranjali Gharat	8	8	4	20
41	Mayur Kondikir	6	6	4	16
	W.		TERNA ENO		

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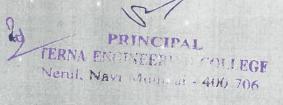
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42	Sejal Yedurkar				
43	THE RESERVE OF THE PARTY OF THE	7	7	3	17
	Akash Chorge	7	6	4	17
44	Vincet More	7	-7	3	17
45	Rohit Tambe	6			16
46	Sanika Gaokar	6	70		10
	оника Саокаг	6	7.	3	

15.0 Result

BE Student List

	Full Name	Qualificati	tion Sr Full Name No		Full Name	Qualification
1	WALLES CHARLES	Qualified		4	Mansi Khandekar	Qualified
2		Qualifed	- 4	5	Palash Dipen Patel	Qualified
3	Pranjal Mukherjee	Qualified		6	Hrishikesh Dongare	Qualified
4	Anurup Killedar	Qualifed	12		Brijesh Duduka	The state of the s
5	Pranav Pravin Khedka	r Qualified	2.	-	Aditya Milind Jadhav	Qualified
6	Sahil Patil	Not Qualifie			Keshar Sanjay Lawane	Qualified Qualified
7	Vismay	Qualified	3()	Rohit Yashwant Bedekar	Qualified
8	Srushti Mali	Not Qualified	d 31		Sahil Mahanand Pawar	Not Qualified
9	Tejas Suryawanshi	Qualified	32		Sahil Shashikant Wayal	Qualified
10	Hasmita Ganga Chaudhari	Qualified	33		Rohan Rajan Parab	Qualified
11	Anjali Bhusara	Qualified	34		Shivani Suhas Pomendkar	Qualified
12	Vijay Dabhade	Qualified	35		Salyajeet Dubey	Qualified
13	Shubham Prasad	Qualified	36	k	Kartik Jagadish Jiddamal	Qualified
14	Aditya mangesh kedari	Qualified	37	1	ogesh Malvani	Qualified
15	Sakshi Raju Mane	Qualified	38	T	ejashree Pawar	Qualified
16	Sagarika Nitin Koli	Qualified	39		ajal Ashok Gaikar	Qualified
17	Kalpesh Rajendra Badgujar	Qualified	40	S	ddhi Pradeep Gharat	Qualified
18	Dhanshree patil	Not Qualified	41	D	nubhangi nyaneshwar nadtare	. Qualified
	Zaid Dhansay	Not Qualified	42	SI	iweta Anil Chavan	Qualified
0	Aman Ravindra Pathak	Qualified	43		ohit Suhas Matekar	Qualified





21	Nimish gangaram løke	Net Qualified	44	Pratik Dinkar Gaikwad	Riel Qualified
22	Komal Gondke	Not Qualified	45	Jadhay Sakahi Sadashiy	Qualified
23	Tanishq Sudhakar Kharat	Qualified	46	Junaid Wara	Qualities

TE Student List

Sr	Full Name	Qualification	Sr	Full Name	Qualification
No			No		
1	Tambde Kshitij	Qualified	24	Prachi Vallickar	Qualified
2	Atharva chikane	Qualified	25	Harsh Shinds	Chalified
3	Aaditya Shinde	Not Qualified	26	Aaryan Chirlekar	Qualified
4	Priyesh Kolte	Qualified	27	Soham mankumbare	Qualified
5	Vinod Chinnarathod	Qualified	28	Khushaal Sonawana	Qualified
6	Ghonge Viraj	Qualified	29	Aryan Ambhore	Qualified
7	Vivek Ingle	Not Qualified	30	Anish Chadi	Qualified
8	Sai Mhaire	Qualified	31	Vaibligvee Keni	Qualified
9	Shraddha tleshmukh	Qualified	32	Shailesh bewlekar	Qualified
10	Janardan Bodke	Qualified	33	Pranay Palekar	Qualified
11	Vipul Mumbaikar	Qualified	14	Gauri Dhumal	Qualified
12	Sparsha Padghan	Qualified	35	Shriya Jadhay	Not Qualified
13	Kolekar mahesh	Qualified	36	Soham Patil	Not Qualified
14	Manay Mangle	Not Qualified	37	Ayush Singh	Qualified
15	Ahiwar Shubham	Qualified	38	Vaishnavi Dombare	Qualified
16	Shinde Neeraj	Qualified	39	Sakshi Ranshur	Qualified
17	Vedant Tambe	Qualified	40	Pranjali Gharat	Qualified
18	Gajendra Gavit	Qualified	41	Mayur Koodikire	Qualified
19	Tanmay Kamble	Qualified	42	Sejat Yedurkar	Qualified
20	Swapneel Lubal	Not Qualified	43.	Akash Chorge	Qualified
21	Nikhil karbhari	Qualified	44	Vinect More	Qualified
22	Shruti Shirsat	Qualified	45	Rohit Tambe	Qualified
23	Aishwarya Nandedkar	Not Qualified	46	Sanika Gackar	Qualified

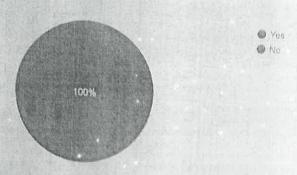
16.0 Feedback

In order to collect the feedback of the training session a google form was floated which consisted of specific questions to gauge the training program. Below is the question wise analysis of the feedback.

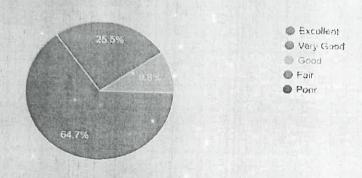
1.Do you feel ETabs training would be beneficial for your career?

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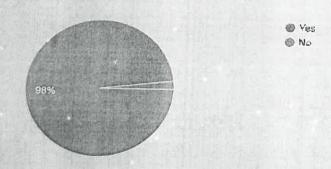




2. How was the curriculum of the ETabs training Program?



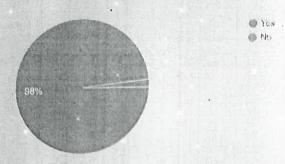
3. Was the ETabs curriculum completed as planned?



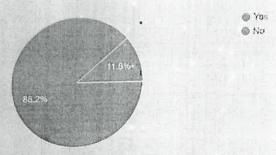
4.Did the ETab training content meet our expectation?



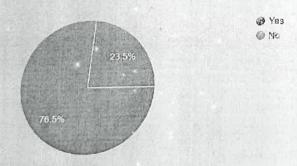
5.Did your trainer respond to your queries in a timely manner?



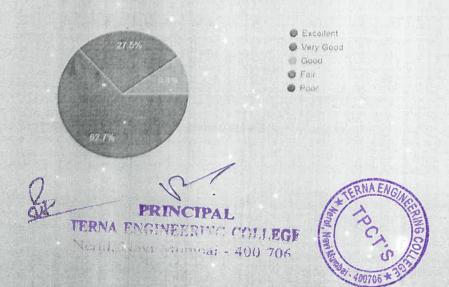
6. Was the time allotted for the training sufficient?



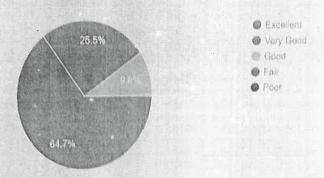
7. Where you able to practice alonge with the instructor?



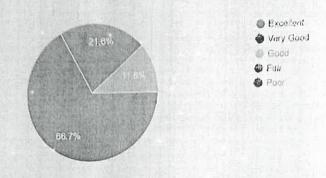
8. How would you rate the course content in terms of being easy to follow?



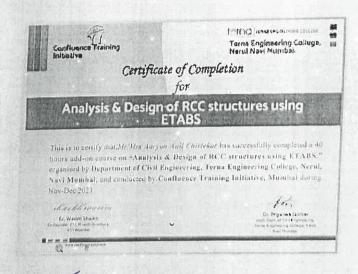
9. How would you rate the trainer for the ETab



10. How was your overall experience with the ETab training?



17.0 Sample Certificates



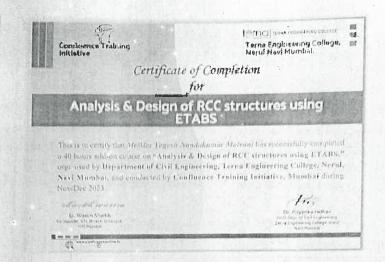
PRII

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Nerul, Navi Mumbai - 400 706





Prof. Ritesh Tandekar Dept. T & P Coordinator Prof. Poonam Patil APC

Dr. Priyanka Salunkhe HOD

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Nettil, Nasa Minimbai - 400 706



TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

Report on

Software Training - Tekla

Enrolled Students

B.E. Civil Engineering

Academic Year:

2023-2024

Organized by

T&P Cell, Dept. of Civil Engineering, TEC In Association with

Department of Civil Engineering, Nerul, Navi Mumbai



Confluence Trainings, Nanded.

TERNA ENGINEER'S COLLEGE

Merul, Navi Minimai - 400 706



CONTENT

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1. Meeting, Approval

1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

01,11,2023

With reference to meeting held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct Value added courses to provide knowledge to students regarding for vital subjects of our discipline. The following faculty members were present in the meeting conducted on 01 November 2023 at Civil HOD Cabin to finalize the Value added course to be offered for this year.

The HOD and the staff members concluded the following Value Added Courses for the academic year 2023-2024

SL. No.	Name of Value Added Course	Semester	Hours	Staff Incharge
1.	Tekla	VIII	40	Ritesh Tandekar

In the meeting it was decided to prepare syllabus & schedule of the program by the staff incharge within a week from the date of meeting.

- 1) Dr. Priyanka Salunkhe (HOD) & Add-on Incharge
- 2) Jamaluddin M. (Faculty).
- 3) Ritesh Tandekar (Course Coordinator)
- 4) Poonam Patil (APC)
- 5) Pradeep Sonwane (Faculty)

Dr. Priyanka Salonkho Dept. of Civil Engg.

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TERNA ENGINEER COLLEGE

Neral, Navi Munica. - 400 706

Regd, No. E-21, (Osmanahad) Dated 30-p9-Rd

DTE INSTT.CODE: 3190

TERMA PUBLIC CHARTTABLE TRUST'S

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Affiliated to University of Mumbal)

Plot No. 12 Sector 23, Opposite Rallway Station, North (W), Navi Mombat-400706, Ph. +91 23 61315444, Fax No. +91 22 61115400 Webs www.ternasngg.ac.in .

To.

The Principal

Tema Engineering College,

Nerul, Navi Mambai - 4000706

Subject: - Regarding Permission for conducting Skill Based Learning program

Respected Sir,

To make the students industry ready and feedback received by students, we have decided to conduct Add on course on software's ETabs, Tekla and Staad-Pro in Association with Confluence Training, Nanded, during the academic year 2023 - 24. I request you kindly to provide the permission to conduct the same. The selected course will be useful to students for proficiency in above software,

Kindly provide permission to do the same.

Thanking You.

Yours Faithfully.

Mr. Jamaluddin Maghrabi

AOC Incharge

Dr. Priynaka Sahaakhe

HOD

CURNA ENGINEER TO COLLEGE

Nervil, Navi Munica: - 400 706

TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

1. Title of the course

: Course on Tekla

2. Objective of the course

: To make student learn Tekla Software which is required for analysis and design of steel structure. This will be beneficial to student for their small year project and for placement as a Design Engineer.

3. Prerequisite

; Basics of Analysis and design of Steel Structure.

4. Beneficiary

: Students and Faculties

5. Date & Duration of the course: 23.04.2024 to 03.05.2024

6. No of hours required

: 40 Hours

7. Internal Resources

: Ritesh Tandekar

8. Internal Assessment

: Assignment

9. Course Registration fees

10. Contents of the course

: Enclosed

11. Credits / Certification

: Those who have 75% attendance for certification.

12. Venue

9 Offline

Course Coordinator

HOD

Dept. of Civil Eng

TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

CIRCULAR

All the students of semester VIII and faculties of department of Civil Engineering Terna Engineering College, Nerul, Navi Mumbai, are hereby informed to enroll their names for add on course "Tekla".

COURSE FEATURES:

Course Duration

: 40 Hours

Beneficiary

: Students & Faculties

Certificate

: Yes

Location

: Offline

Schedule

: 23.04.2024 to 03.05.2024

PRINCIPAL

TEANA ENGINEERING COLLEGE

POUL Navi Mumbai - 400 706



2.0 About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and it is located at Nerul, Navi Mumbai on a beautiful 3-acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG, 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like E gineering Products and Innovation Center (EPIC), Remote centre of BT Bombay which facilitates student / faculty members to interact with BT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, Ialented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

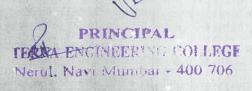
2.1 About Department:

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to promote the disciplines of Planning, Design, Construction, Operation,

Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly qualified and dedicated faculty are recruited and they are always on their toes to guide the students, form the backbone of the department.

Key Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Engineering Geology, Civil Computer Laboratory, Surveying Laboratory, Hydraulies and Fluid Mechanics Laboratories
- Consultancy Services Offered and Fully Equipped with Major Facilities Like Fully Automatic Compression Testing Machine 2000 kN (NABL Accredited), Fully Automatic Universal Testing Machine (UTM 100 Ton- NABL Accredited), Fully Automated Total Station for Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing





- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas.
 Power Projects
- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures,
 Pavement Design & Analysis, Geotextile Materials for Seil St. bilization, Geotechnical Engineering, Remote Sensing & GIS
- Active Mentoring Processes for Continuous Assessment in Academics
- · Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- · Expert Lectures by Industry Experts
- NPTEL Courses
- · Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- · Patents, Designs and Copyright Development
- Achieved 100 % students intern during winter vacations (2019-2020) in renowned organizations like Airport Authority of India (AAI), Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), Rashtriya Chemical Fertilizers (RCF), American Concrete Institute and so many.

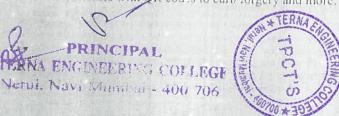
3.0 About Course

An add on course of training of Tekla software has been introduced by the Department of Civil Engineering, Terna Engineering College, Navi Mumbai for B.E (Civil) students. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 40 hrs.

4.0 About Consultancy

Confluence Training Initiative (CTI) was started in year 2021 with aim of providing affordable access to high-quality training in civil engineering. With a very small and highly experienced team we have conducted multiple training programs in Pune & Mumbai and planned to keep on serving in the future. Following are some key features of our add-on training programs.

- Experienced resource personnel.
- Project based learning assignment on real life projects.
- Free additional online learning courses on Tekla.
- Traceable certificates with QR codes to curb forgery and more.



5.0 Schedule

Date	Day	Time	Module
3-April-24	Tuesday	9.00 AM to 1.00 PM	Module No. 1
4- April-24	Wednesday	9,00 AM to 1,00 PM	Module No. 2
15- April-24	Thursday	9.00 AM to 1.00 PM	Module No. 2
26- April-24	Friday	9.00 AM to 1.00 PM	Module No. 3
27- April-24	Saturday	9.00 AM to 1.00 PM	Module No. 3
29- April-24	Monday	9.00 AM to 1.00 PM	Module No. 4
0- April-24	Tuesday	9.00 AM to 1.00 PM	Module No. 4
01 - May-24	Wednesday	9.00 AM to 1.00 PM	Module No. 5
)2- May-24	Thursday	9.00 AM to 1.00 PM	Module No. 5
03- May-24	Friday	9,00 AM to 1,00 PM	Module No. 5

6.0 Syllabus

Module	Course contents	Hour			
1	Introduction to Tekla structure	. 2			
	Applications, feature, advantages over other CAD tools and limitations	77			
2	Basic Modeling Techniques				
	Modeling of various joints: Beam Column Joints of various types. Modeling of Tapered sections beams. Modeling of Base plates.	10			
3	Drawing and Output				
	Numbering and reports, Principles of working with drawings, Creating General Arrangement Drawings, Creating Assembly Drawings, Creating Single Part Drawings and Multi Drawings and multi numbering etc.				
4	Detailing of steel warehouse	8			
	Creation of: Grids, rafters, Purlins, rafter end connections, Base plate, Pad Footing, Cladding Gutters etc.				
5	Introduction to Concrete Modeling				
	Isolated Footing generation part, Creation of piles in Tekla, Creation of strip footings in Foundation with Tekla, Creation of Slab and discount of materials in Tekla, Creation of Structural				





Columns in Tekla, Creation of concrete beams in Tekla and Rebar modelling

7.0 Course Objective & Course Outcome

After completion of the course the student will be able to model and design connection details in Tekla.

7.1 Course Objective

- 1. Understand various commands in Tekla software
- 2. Model the structure in Tekla
- 3. Understand different types of connection (Bolted & Welded)
- 4. To produce fabrication drawings
- 5. Understand the fabrication drawing and bill of quantities

7.2 Course Outcome

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

- 1. Model the structure in Tekla
- 2. Design connection details
- 3. Understand fabrication drawings
- 4. Produce bill of quantities

7.3 Program Outcome

- PO 1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
- PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO 6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.





PO 7: - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8: - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9: - Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10: - Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design dommentation, make effective presentations, and give and receive clear instructions.

PO 11: - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12: - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcome

PSO 1: - Graduates will be able to plan, analyze, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.

PSO 2: - Graduates will be able to use different software related to Civil Engineering for developing skills required by the industry.

8.0 CO. PO & PSO Mapping

Module	Course contents	CO	PO	PSO
I	Introduction to Tekla structure	1	1,2,5,9,11,12	1,2
2	Basic Modeling Techniques	1,2	1,2,3,4,8,9,	1,2
3	Drawing and Output	3,4	1,2,3,9,10,	1,2
4	Detailing of steel warehouse	2,3	1,2,3,4,5,6,7, 8,9,10,11,12	1,2
5	Introduction to Concrete Modeling	1,2,4	1,2,3,9,10,	1,2





9.0 List of Students

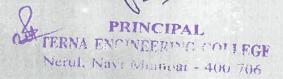
BE Student List

Sr. No	Full Name	TUFID	Sr.	Full Name	TUFID
1	Vaibhav Gholap	TU7F2021001	18	Komal Gendke	TU7F2021048
2	Aditya Shahasane	TU7F2021004	19	Tanishq Sudhakar Kharat	TU7F2021049
3	Pranav Pravin Khedkar	TU7F2021009	20	Mansi Khandekar	TU7F2021052
4	Sabil Patil	TU7F2021010	21	Palash Dipen Patel	TU7F2021025
5	Rushikesh Jalinder Mohite	TU7F2021013	22	Brijesh Duduka	TU7S2122002
		TU7F2021015	23	Aditya Milind Jadhav	TU7S2122003
7	Tejas Suryawanshi Anjali Bhusara	TU7F2021020	24	Sahil Shashikant Wayal	TU7S2122008
		TU7F2021032	25	Krutika Sawant	TU7S2122009
8	Vijay Dabhade Sakshi Raju Mane	TU7F2021036	26	Shivani Suhas Pomendkar	TU7S2122010
			20	Abhay Nagothanekar	TU7S2122011
10	Sagarika Nitin Koli	TU7F2021037	27	Milind Thikade	TU752122012
11	Kalpesh Rajendra	TU7F2021038	28	William Lineage	
	Badgujar		29	Tejashree Pawar	TU7S2122017
12	Dhanshree patil	TU7F2021040	30	Kajal Ashok Gaikar	TU7S2122018
13	Zaid Dhansay Sahil Ananta Mhatre	TU7F2021042 TU7F2021043	31	Siddhi Pradeep Gharat	TU7S2122019
15	Aman Rayindra	TU7F2021044	32	Shweta Anil Chavan	TU7S2122022
	Pathak	TU7F2021045	33	Rohit Suhas Matckar	TU7S2122023
16 17	Nimish gangaram loke Robit Shrimant Shelke	TU7F2021045	34	Jadhav Sakshi Sadashiv	TU7S2122026

10.0 Attendance

BE Student List

Sr. No	Full Name	23- Apr	24- Apr	25- Apr	26- Apr	27- Apr	29- Apr	30+ Apr	01s May	02s May	#3- May	AVG
1	Vaibhay Gholap	р	р	P	A	P	A	P	P	Р	P	80
2	Aditya Shahasane	р	P	Р	P	P	P	P	P	P	P	100
3	Pranay Prayin Khedkar	P	P	P	P	P	P	P	Р	P	P	100
4	Sahil Patil	P	P	p	Р	P	A	A	Р	Р	P	80
5	Rushikesh Jalinder Mohite	P	P	P	Λ	P	þ	A	A	P	P	70
6	Tejas Suryawarshi	P	P	A	P	P	Р	P	A	P	b	80
7	Anjali Bhusara	P	Р	A	la l	P	A	þ	P	P	P	80
8	Vijay Dabhade	P	p	P	Р	P	P	D	P	P	P	100





9	Sakshi Raju Mane	P	P	P	A	P	P	T p	- I p	1 p	1 p	90
10	Sagarika Nitin Koli	P	P	P	P	P	р	p	p	P	P	100
11	Kalpesh Rajendra Badgujar	P	P	P	P	р	A	A	P	P	P	80
12	Dhanshree patil	P	Р	P	A	A	P	P	p	P	12	80
13	Zaid Dhansay	P	P	p	P	P	A	A	P	P	p	80
14	Sahil Ananta Mhatre	A	P	A	p	P	P	р	P	P	р	80
15	Aman Ravindra Pathak	P	p	p	p	p	P	P	p	P	P	100
16	Nimish gangaram loke	P	P	A	12	· A	b	A	P	P	A	80
17	Rohit Shrimant Shelke	A	A	Р	P	A	P	Α	P	P	19	60
18	Komal Gondke	p	P	P	P	P	P	Р	A	Α	P	80
19	Tanishq Sudhakar Kharat	P	P	Р	la-	Р	Р	Р	A	A	P	80
20	Mansi Khandekar	P	P	P	P	P	P	P	P	P	P	100
21	Palash Dipen Patel	P	P	P	Р	P	Р	P	P	p	P	100
22	Brijesh Duduka	P	P	P	P	P	P	1	P	P	P	100
23	Aditya Milind Jadhav	P	P	P	P	P	P	P	P	P _	P	100
24	Sahil Shashikant Wayal	P	P	P	P	P	P_	P	P	P	P	100
25	Krutika Sawant	A	A	A	A	A	A	P	P	P	P	80
26	Shivani Suhas Pomendkar	P	P	P	P	P	P	A	P	Λ		
27	Abhay Nagothanekar	Λ	A	P.	P	P	A	A	P	P	Α	50
28	Milind Thikade	P	P	A	A	A	P	P	р	Р	Λ	60
29	Tejashree Pawar	P	P	P	P	P	P	Р	P	A	A	80
30	Kajal Ashok Gaikar	A.	P	P	Α	Р	P	P	P	P	Р	80
31	Siddhi Pradcep Gharat	P	P	P	P	A	P	р	P	Р	la la	9.0
32	Shweta Anil Chavan	Р	P	P	P	Р	Р	р	P .	P	P	100
33	Robit Suhas Matekar	ק	P	Р	P	P	1>	Р	p	P	P	100
34	Jadhay Sakshi Sadashiy	Λ	Р	P	Λ	P	р	P	P	Р	P	80

11.0 Result

BE Student List

Sr. No	Full Name	Qualification	Sr. No	Full Name	Qualification
1	Vaibhay Gholap	Qualified	18	Komal Gondke	Qualified
2	Aditya Shahasane	Qualified	19	Tanishq Sudhakar Kharat	Qualified
3	Pranav Pravin Khedkar	Qualified	20	Mansi Khandekar	Qualified
4	Sahil Patil	Qualified	21	Palash Dipen Patel	Qualified
5	Rushikesh Ja!inder Mohite	Not Qualified	22	Brijesh Dudnka	Qualified

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Nerul, Nava Munifosi - 400 706

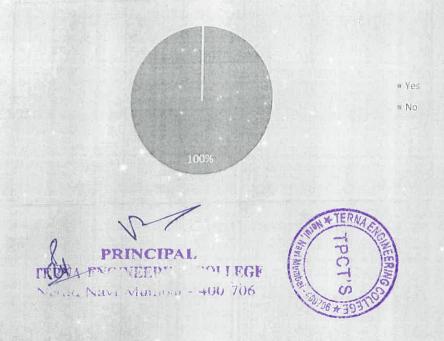


6	Tejas Suryawanshi	Qualified	23	Aditya Milind Jadhay	Qualified
7	Anjali Bhusara	Qualified	24	Sahil Shashikant Waval	Qualified
8 -	Vijay Dabhade	Qualified	25	Krutika Sawant	Not Qualified
9	Sakshi Raju Mane	Qualified	26	Shivani Suhas Pomendkar	Qualified
10	Sagarika Nitin Koli	Qualified	27	Abhay Nagothanekar	Not Qualified
11	Kalpesh Rajendra Badgujar	Qualified	28	Milind Thibade	Not Qualified
12.	Dhanshree patil	Qualified	29	Tejashree Pawar	Qualified
13	Zaid Dhansay	Qualified	30	Kajal Ashok Gaikar	Qualified
14	Sahil Ananta Mhatre	Qualified	31	Siddhi Pradeep Gharat	Qualified
15	Aman Ravindra Pathak	Qualified	32	Shweta Anil Chavan	Qualified
16	Nimish gangaram loke	Qualified	33	Rohit Suhas Matekar	Qualified
17	Rohit Shrimant Shelke	Not Qualified	34	Jadhav Sakshi Sadashiv	Qualified

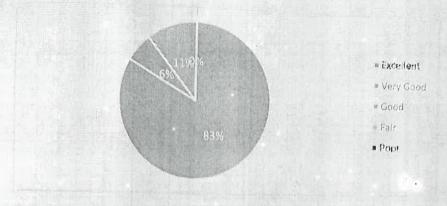
12.0 Feedback

In order to collect the feedback of the training session a google form was floated which consisted of specific questions to gauge the training program. Below is the question wise analysis of the feedback.

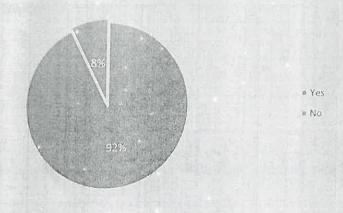
1.Do you feel Tekla training would be beneficial for your career?



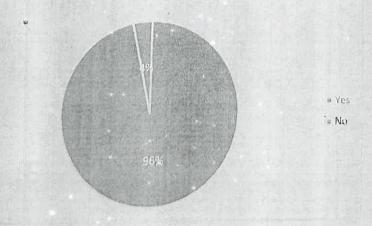
2. How was the curriculum of the Tekla training Program?



3. Was the Tekla curriculum completed as planned?



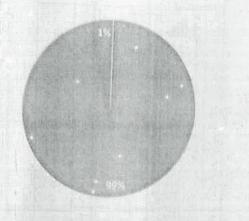
4.Did the Tekla training content meet our expectation?







5, Did your trainer respond to your queries in a timely manner?



#Yes

o. Was the time allotted for the training sufficient?



e Yes

= No

7. Where you able to practice alonge with the instructor?



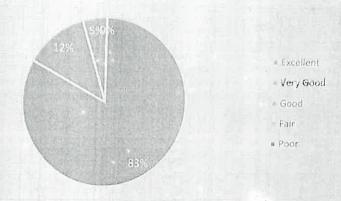
4 Yes

a No

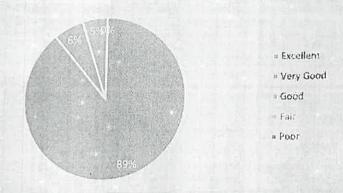




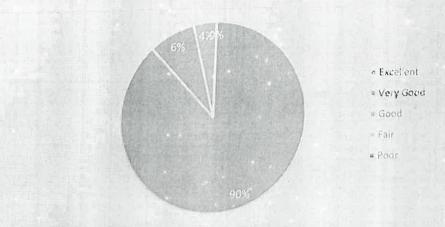
8. How would you rate the course content in terms of being easy to follow?



9. How would you rate the trainer for the Tekla?



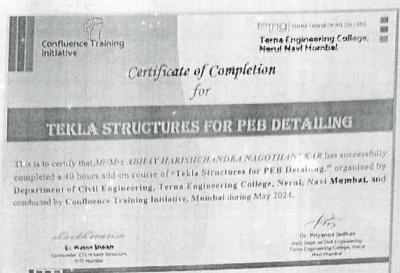
10. How was your overall experience with the Tekla training?

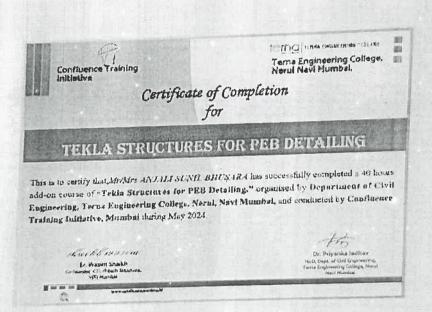






13.0 Sample Certificates











THE UTICAL FRENCH CHAINE CONTEGE Terna Engineering College, En

Certificate of Completion for TEKLA STRUCTURES FOR PEB DETAILING

This is to certify that ANIMIN ADITYA STAIL IN LANE has successfully completed a 40 hours add-on course of Tekla Structures for PEB Detailing," organised by Department of Civil Engineering, Terns Engineering College, Neval, Navi Mumbai, and conducted by Confluence Training Initiative, Mambal during May 2024.

distant marien Er. Waden Stuckt Optower Cit. Wench Streeten Will Market

Frof. Ritesh Tandekar Dept. T & P Coordinator

Prof. Poonam Patil APC

Dr. Priyanka Salunkhe HOD

TERNA ENGINEERING COLLEGE Nerul, Navi Mumbai - 400 706



TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

Department of Civil Engineering

Report on

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B.E. Civil Engineering

Academic Year:

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In Association with

Department of Civil Engineering, Nerul, Navi Mumbai



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1. Meeting, Approval

1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

01.11:2023

With reference to meeting held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct Value added courses to provide knowledge to students regarding for vital subjects of our discipline. The following faculty members were present in the meeting conducted on 01 November 2023 at Civil HOD Cabin to finalize the Value added course to be offered for this year.

The HOD and the staff members concluded the following Value Added Courses for the academic year 2023-2024

SL. No.	Name of Value Added Course	Semester	Hours	Staff Incharge
1.	Software Training (Staad Pro)	VIII	40	Ritesh Tandekar

In the meeting it was decided to prepare syllabus & schedule of the program by the staff incharge within a week from the date of meeting.

- 1) Dr. Priyanka Salunkhe (HOD) & Add-on Incharge
- 2) Jamaluddin M. (Faculty)
- 3) Ritesh Tandekar (Course Coordinator)
- 4) Poonam Patil (APC)
- 5) Pradeep Sonwane (Faculty)

Dr. Priyanka Salunkhe Dept of Civil Engg.

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Nerul, Navi Mumbai - 400 706



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Nerul, Navi Mumbai - 400 706



How would you rate the trainer for the Printavera course?

EXCELLENT

VERY GOOD

FAIR

POOR

How was your overall experience with the add on course (Primavera)?

EXCELLENT

VERY GOOD

GOOD

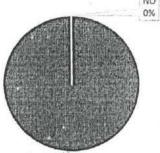
FAIR

POOR

Do you have any suggestion or feedback for us?

Long shawer text

Do you feel Primavera ADD ON COURSE was beneficial for you?



YES 100%

TERNA ENGINEERING COLLEGE

Stavi Moroods - 400-706

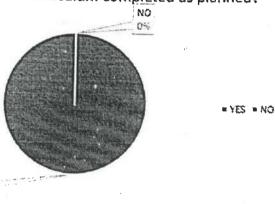


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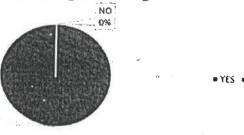


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Was the Primavera curriculum completed as planned?



Did the Primavera course was helpful for understanding construction engineering and management?



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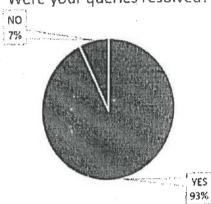
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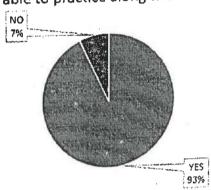


Were your queries resolved?



= YES # NO

Were you able to practice along with the instructor?



■ YES ■ NO

How would you rate the course content in terms of being easy to



Excellent # Very Good # Good # Fair # Pool



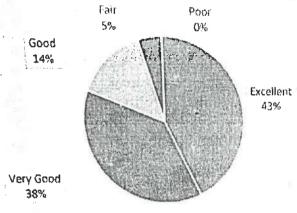
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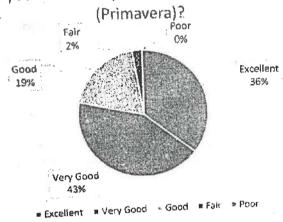


How would you rate the trainer for the Primavera course?



■ Excellent ■ Very Good ■ Good ■ Fair ■ Poor

How was your overall experience with the add on course



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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that Mr. /Ms. VISMAY VINOY

Student of final year has satisfactory completed Value Added Course in *Primavera p6* during the entire semester -VII during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.

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Course in charge

HOD

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Principal

TERNA ENGINEERING COLLEGE DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that Mr. IMs. YOURSH MALWAND

Student of final year has satisfactory completed Value Added Course in *Primavera p6* during the entire semester—VII during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.

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Course In charge

HOD

Principal

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TERNA ENGINEERING COLLEGE

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that Mr. /Ms. KRUTIKA SAWANT

Student of final year has satisfactory completed Value Added Course in Primavera p6 during the entire semester -VII during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.



Course in charge



HOD



Principal

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TERNA ENGINEERING COLLEGE

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that Mr. /Ms. ROHIT BEDEKAR

Student of final year has satisfactory completed Value Added Course in Primavera p6 during the entire semester -VII during academic year 2023-24 in association with Bentley. This certificate has been issued to him/her after qualifying the exam.





Principal

Course in charge

Dr. Priyanka Salunkhe

HOD

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Terna Engineering College, Nerul Navi Mumbai

Department of Civil Engineering

Report on

ADD ON COURSE (Exit Course)

Enrolled Students

B.E. Civil Engineering

Academic Year:

2023-2024 (FH-24)



Organized by

Department of Civil Engineering, Nerul, Navi Mumbai

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TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE, NERUL

Date: - 25/10/2023

To.

The Principal,

Tema Engineering College,

Nerul, Navi Mumbai - 400706

Subject: - Regarding Permission for Conducting Add-on Course (Exit - Course)

The Department of Civil Engineering intends to provide an Add-on Course (Exit - Course) for final year students to improve their basics of the important subjects. The objective of the course is to solve MCQs on core subjects of civil Engineering. This Course will help students in many entrance exam like GATE & other competitive exams. We request you to provide the permission to conduct the same. Instructor of this course will be our faculty.

Kindly provide the permission to do the same.

Thanking you.

Mr. Jamaluddin Maghrabi

AOC Incharge

Dr. Priyanka Salunkhe

HOD

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Nerul, Navi Mumbai - 400 706



1. Meeting 1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

Date: 26/10/2023

With reference to meetings held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct an ADD - ON Course to provide knowledge to students regarding vital subjects of our discipline. The following faculty members were present in the meeting conducted on 25th October 2023, at Civil HOD Cabin to finalize the ADD - ON course to be offered for this semester.

The HOD and the staff members concluded the following Add on Course for the academic year 2023-2024

SR. No.	Name of Value Added Course	Semester	Hours	Subject Incharge
1.	ADD - ON Course (Exit Course)	VIII	40hrs	Mr. Dharmesh Gangani

In the meeting it was decided to prepare the syllabus of the program by the staff in charge within a week from the date of meeting.

- 1) Dr. Priyanka Salunkhe (HOD)
- 2) Mr. Jamalludin Maghrabi
- 3) Mr. Dharmesh Gangani
- 4) Mr. Agarchand Kawale

Mr. Dharmesh Gangani Subject Incharge Dr. Priyanka Salunkhe HOD

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TERNA ENGINEERING COLLEGE, NERUL

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024 (FH-24)

1. Title of the course

: ADD - ON Course (Exit Course)

2. Objective of the course

: This course's primary goals were to increase students' knowledge

and Proficiency in answering multiple-choice questions (MCQs)

in the Foundational subjects of civil engineering.

3. Prerequisite

: TRCS, DDSS, QSEV, CT, SA, SOM

4. Beneficiary

: Students

5. Date & Duration of the course: Throughout the Semester

6. No of hours required

: 40 Hours

7. Internal Resources

: Mr. Dharmesh Gangani

8. Internal Assessment

: MCQ Test

9. Contents of the course

: Enclosed

10. Credits / Certification

: Minimum 50% Marks in MCQs Test and 75% Attendance are

Eligible for certification.

11. Venue

: Civil Engineering Classrooms (203 & 211)





2. About Institute

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and it is located at Nerul, Navi Mumbai on a beautiful 3 acre campus. The institute is affiliated to University of Mumbai, approved by AICTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG and 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote center of IIT Bombay which facilitates student / faculty members to interact with IIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

2.1 About Department

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to promote the disciplines of Planning, Design, Construction, Operation,

Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly qualified and dedicated faculty are recruited and they are always on their toes to guide the students, forming the backbone of the department.

Key Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Engineering Geology, CAD Laboratory, Surveying Laboratory, Hydraulics and Fluid Mechanics Laboratories
- Consultancy Services Offered and Fully Equipped With Major Facilities Like Fully Automatic Compression Testing Machine 200 Tons (NABL Accredited), Fully Automatic Universal Testing Machine (UTM 100 Ton- NABL Accredited), Fully Automated Total Station for Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing

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- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas,
 Power Projects
- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures, Pavement Design & Analysis, Geotextile Materials for Soil Stabilization, Geotechnical Engineering, Remote Sensing & GIS
- Active Mentoring Processes for Continuous Assessment in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- Expert Lectures by Industry Experts
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- Patents, Designs and Copyright Development
- Achieved 100 % students intern during winter vacations (2019-2020) in renowned organizations like Airport Authority of India (AAI), Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), Rashtriya Chemical Fertilizers (RCF), American Concrete Institute and so many.

3. About Course

An ADD - ON course (Exit Course) has been introduced by the Department of Civil Engineering, Terna Engineering College, Navi Mumbai for Final Year students in Sem-VIII. This course's primary goals were to increase student's knowledge and proficiency in answering multiple-choice questions (MCQs) in the foundational subjects of civil engineering. This course is beyond their regular syllabus.

4. About Instructor

This course has been conducted by Mr. Dharmesh Gangani, Assistant Professor (Masters in Structural Engineering) & Mr. Agarchand Kawale, Assistant Professor (Masters in Water Resource Engineering).

5. Course Scheme

The marking scheme of this course has been decided at the institute and the departmental level.

Contact Hours: - 05 hrs per week

Sem. : - VIII

Attendance	MCQs Test	TOTAL
10	15	25





6. Syllabus

	Topic No.	Contents	
		Bolted and wolded consulting	Hours
	1	Bolted and welded connections for axial force, beam to beam and beam to column connections, Tension members with welded and bolted end connection using single angle section & double angle section. Compression members, classification of cross sections, types of buckling, effective length of column and slenderness ratio, buckling curves. Design strength of laterally unsupported beams, web buckling, web crippling, shear lag effect and deflection.	08
	2	Stress- strain curve of concrete and steel, characteristics of concrete and steel reinforcement. Concept of balanced, under reinforced and over reinforced sections. Concepts of probability and reliability, characteristic load, characteristic strength. Singly and doubly reinforced Rectangular and Flanged sections for flexure, shear and bond. Beams subjected to bending, shear and torsion. Limit state of collapse: compression for short and slender column. Members subjected to combined axial and series.	08
	3	Units of measurement of various items of works, Measurement systems for specific items of civil engineering structures, deduction rules for Masonry & Plastering work. Factors affecting rate analysis, Task work, sources of materials, Study of IS 7272	06
	4	Properties of fresh and hardened concrete, factors affecting of workability, vibration of concrete, Types of vibrators: Internal, external, surface and table Durability: factors affecting durability, relation between durability and permeability, laboratory tests on durability such as Permeability test, Rapid chloride penetration test (RCPT). Definition and objectives, Types of mix as per IS:456, Mix design for compressive strength and flexural strength in accordance with IS 10262 and IS 456 Non-Destructive Testing: Need, application and limitation, Schmidt Rebound	
	5	Three hinged elastic arches, Determination of normal thrust, radial shear and bending moment for Symmetrical & Unsymmetrical parabolic three hinged arches Influence lines for Reactions, shear force and bending moment at a section of cantilever, simply supported, overhanging beams without internal hinges Deflection of Statically determinate structures, Application of Unit Load Method for calculating slope and deflection of a point on rigid jointed frames and deflection of a point on Pin jointed truss	
	6	Types of Stresses and Strains, stress-strain curve, different types of Elastic moduli and relationships between them, Poisson's ratio, factor of safety	
1	71	NGINSA 06	

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 TOTAL	40hrs
without internal hinges and for single loading like point load, UDL, UVL or Couple moment. Area Moment of inertia, Parallel and Perpendicular axis theorem, polar moment of inertia. Radius of gyration. (Rectangular, Triangular, Circular, Semicircular section and their combination) Strain energy due to axial force and impact loads in columns, due to bending in beams, due to torsion of shaft	
A.F. S.F. and B M Diagrams for statically determinate SS and Cantilever beams	T

7. Course Objective and Course Outcome

Course Objective

- To make students familiar with behavior of steel structure and their components under the action
 of various loads. To Study various clauses of IS 800:2007
- 2. To study various clauses of IS: 456-2000 and their significance in the RCC design
- 3. To Study DSR & various methods of estimates for specific items of civil engineering structures
- 4. To enable the students to understand the mechanized and precise procedure of concrete production in Ready Mix Plants. To understand the basic non-destructive tests conducted on concrete to check the in place strength and durability of concrete.
- 5. To analyze for axial force in the Coplanar, perfect trusses and analysis of 3- Hinged arches. To study the concept of Influence Line Diagrams for Reactions, SF and B M in beams.
- To learn stress strain behavior and physical properties of materials. To Study AF, SFD & BMD
 of simply supported & Cantilever Structure.

Course Outcome

On completion of this course, the students will be able to:

CO1: Use the knowledge of Limit State Design philosophy & clauses of IS 800:2007 as applied to steel structures.

CO2: Apply various clauses specified in IS: 456-2000 for designing structural members with safety and economy.

CO3: Estimate approximate cost of the structure by various methods & prepare detailed estimates of various civil engineering structures.

CO4: Identify the ingredients and properties of fresh and hardened concrete. To interpret and design concrete mix for various grades for various exposure conditions

CO5: To Calculate radial shear, normal thrust and bending moment in parabolic 3- Hinged arches. Calculate deflection of statistically determinate structure.

CO6: To Calculate stress and strain. Draw Influence Line Diagrams for axial forces in trusses, Reactions, SF and B M in beams and find their values when rolling loads are pressing over them

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Program Outcome

- PO 1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO 2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
- PO 3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO 6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10: -Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO 11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcome

- PSO 1: Graduates will be able to plan, analyses, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.
- PSO 2: Graduates will be able to use different software related to Civil Engineering for developing skills required by the industry.





8. Mapping CO, PO and POS

Mod . No	Topic of Content	СО	РО	PSC
ŝ	Bolted and welded connections for axial force, beam to beam and beam to column connections, Tension members with welded and bolted end connection using single angle section & double angle section. Compression members, classification of cross sections, types of buckling, effective length of column and slenderness ratio, buckling curves. Design strength of laterally unsupported beams, web buckling, web crippling, shear lag effect and deflection.	1	1, 2, 3, 4, 5, 6, 7, 8, 10, 12	1,2
2	concrete and steel reinforcement. Concept of balanced, under reinforced and over reinforced sections. Concepts of probability and reliability, characteristic load, characteristic strength. Singly and doubly reinforced Rectangular and Flanged sections for flexure, shear and bond, beams subjected to bending, shear and torsion. Limit state of collapse: compression for short and slender column. Members subjected to combined axial and uniaxial as well as biaxial bending.	2	1, 2, 3, 4, 5, 6, 7, 8, 10, 12	1,2
3	Units of measurement of various items of works, Measurement systems for specific items of civil engineering structures, deduction rules for Masonry & Plastering work. Factors affecting rate analysis, Task work, sources of materials, Study of IS 7272 regarding labor output, District Schedule of Rates (DSR) Technical sanction, Contingencies, Work charged establishments etc. Various terms such as depreciation, sinking fund, capitalized value, years purchase etc	3	1, 2, 3, 4, 5, 6, 7, 8, 10, 12	1,2
I I da a l l l l l l l l l l l l l l l l l	Properties of fresh and hardened concrete, factors affecting of workability, vibration of concrete, Types of vibrators: Internal, external, surface and table vibrators. Durability: factors affecting durability, relation between durability and permeability, laboratory tests on durability such as Permeability test, Rapid chloride penetration test (RCPT). Definition and objectives, Types of mix as per IS:456, Mix design for compressive strength and flexural strength in eccordance with IS 10262 and IS 456. Ion-Destructive Testing: Need, application and limitation, chmidt Rebound hammer test, Ultrasonic Pulse Velocity est.	4	1, 2, 3, 4, 5, 6, 7, 8, 10, 12	1

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5	Three hinged elastic arches, Determination of normal thrust, radial shear and bending moment for Symmetrical & Unsymmetrical parabolic three hinged arches Influence lines for Reactions, shear force and bending moment at a section of cantilever, simply supported, overhanging beams without internal hinges Deflection of Statically determinate structures, Application of Unit Load Method for calculating slope and deflection of a point on rigid jointed frames and deflection of a point on Pin jointed truss	5	1, 2, 3, 4, 5, 6, 7, 8, 10, 12	1
6	Types of Stresses and Strains, stress-strain curve, different types of Elastic moduli and relationships between them, Poisson's ratio, factor of safety A.F. S.F. and B M Diagrams for statically determinate SS and Cantilever beams without internal hinges and for single loading like point load, UDL, UVL or Couple moment. Area Moment of inertia, Parallel and Perpendicular axis theorem, polar moment of inertia. Radius of gyration. (Rectangular, Triangular, Circular, Semicircular section and their combination) Strain energy due to axial force and impact loads in columns, due to bending in beams, due to torsion of shaft	6	1, 2, 3, 4, 5, 6, 7, 8, 10, 12	1

9. Schedule

			TPCT's TE	RNA ENGINEE	RING COLLEG	E	WEINER HAN	This investor
			DEPARTI	MENT OF CIVIL	ENGINEERIN	G		
			Academi	c Time Table 2	023-24 (FH-24	1)		21
			CLAS	S:8E (CIVIL), SE	M-VIII ID11			
Day/Time !	9:06-19:00	10:00-11:00	11:15-12:15	12:15-1:15	Y	-		5.
ROSE	PM 58 R-203	IWT RY R-203		3/PP / R 207	1:15-1:45	1:45-2:45	2:45-3:45	3:45-4:45
TUE	RRR DG R-203	CIA PP R 203	RRR DG R-211	AOCBE-DG R-211		IMI SI	PM 58	AOC-BE AJ
CIW	N.	1	AZ/CM LA	/PP / R 207	BREAK	R-203 Ph4 58	R-203 AOC-RE-DG	ACC-PE DE
TeU	A1/CM U.	3 /PP / R 207	CJA PP R-203	IWT RT R-203		R 201 RRR DG R-203	R-203	ADC-RE DG
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10. List of Students

Roll No.	I III M	Student Name		110	ID No	6.4
A01	TU7F202100	GHOLAP VAIBHAV LAIIU		37		Student Nan LOKE NIMISH
A02	TU7F202100			_	TU7F202104	GANGARAM
A03	TU7F202100) A.	38	TU7F2021046	6 SHELKE ROHIT SHRIMANT
A04		KAILAS	A3	39	TU7F2021048	GONDKE KOMAL
		PRAVIN	A4	0	TU7F2021049	KHARAT TANISHQ
A05	- 4712021000	TO TRATIK SANTOSH	A4	1	TU7F2021052	KHANDEKAR MAN
A06	TU7F2021005	WINDWICE HOUNDAL	A4.	2	TU7F2021553	PATIL TANISHO
A07	TU7F2021007	KILLEDAR ANURUP ANIL	A4.	3	TU7F2021028	SOMNATH
A08	TU7F2021008	MHATRE SHARV SANTOSH	A44		TU7F2021026	HOTKAR AKSHATA MAHADIK SAHIL
A09	TU7F2021009	THE TRAINE FRAVIN	A45		TU7F2021027	RAJESH
A10	TU7F2021010	PATIL SAHIL RAVINDRA	A46		TU7F2021027	SINGH SAHIL DEEPR
All	TU7F2021011	VINOY VISMAY LUKOSE	A47	-	TU7S2122001	PATEL PALASH DIPE
A12	TU7F2021012	WAGHMARE NILESH	A48		TU7S2122001	DONGRE HRISHIKES
A13	TU7F2021013	MOHITE RUSHIKESH	A49	_	TU7S2122003	DUDUKA BRIJESH
A14	TU7F2021014	MALI SRUSHTI SHIVAJI	A50		TU7S2122004	JADHAV ADITYA
AI5	TU7F2021015	SURYAWANSHI TEJAS DILIP	A51		TU7S2122004	LAWANE KESHAR BEDEKAR ROHIT
A16	TU7F2021016	PATIL SUMIT DINESH	A52		ΓU7S2122007	
A17	TU7F2021017	BHUSARA DIGVIJAY	A53	_	TU7S2122007	PAWAR SAHIL
A18	TU7F2021019	CHAUDHARI HASMITA GANGA	A54		TU7S2122006	WAYAL SAHIL PARAB ROHAN RAJAN
A19	TU7F2021020	BHUSARA ANJALI SUNIL	A55	7	U7S2122009	
A20	TU7F2021024	KOPPULA ASHOK SATISH	A56	_	U7S2122010	SAWANT KRUTIKA
A21	TU7F2021022	AMBRE ANURAG SANJAY	A57		U7S2122011	POMENDKAR SHIVAN NAGOTHANEKAR
422	TU7F2021029	CHOUGULE PARTH VINOD	A58	T	U7S2122012	ABHAY
1.23	TU7F2021031	GHAWARE SAMBODH	A59	_	U7S2122013	THIKADE MILIND JAN
.24	TU7F2021032	DABHADE VIJAY SANJAY	A60		U7S2122014	DUBEY SATYAJEET
25	TU7F2021033	PRASAD SHUBHAM	A61	-	U7S2122015	SIDDAMAL KARTIK
26	TU7F2021034	KEDARI ADITYA MANGESH	A62		U7\$2122017	MALVANI YOGESH PAWAR TEJASHREE
.27	TU7F2021035	CHAVAN AISHWARYA	A63	_	J7S2122018	GAIKAR KAJAL
28	TU7F2021036	MANE SAKSHI RAJU	A64	1	J7S2122019	GHARAT SIDDHI
29	TU7F2021037	KOLI SAGARIKA NITIN	A65		J7S2122020	PHADTARE
30	TU7F2021038	BADGUJAR KALPESH	A66	TL	7S2122021	SHUBHANGI PANPALIYA KAUSTUBH
	TU7F2021039	CHAKOR SHUBHAM	Λ67			CHAVAN SHWETA
32		PATIL DHANSHREE VIKAS	A68			MATEKAR ROHIT
33		DHANSAY ZAID ZAFARULLAH	A69		7S2122026	JADHAV SAKSHI
34		MHATRE SAHIL ANANTA	A70	TU		SADASHIV KASBE DHANANJAY
35	Control of the contro	SINGH ANKIT RAJ ASHOK	Λ71		-	WANI JUNAID AHMAD
36		PATHAK AMAN RAVINDRA		_		UAMINA UBMIOLIPIA

PRINCIPAL
FERNA ENGINEER FOLLEGE
Nerul, Navi Mumoai - 400 706



11. Rubrics for Evaluation

Term Work

	Head	Marks (25)
1	Attendance	10
2	MCQs Test	15

Attendance

	Head	Marks
1	91% onwards	10
2	81%- 90%	9
3	75%- 80%	8

Credits / Certification: Those who have 75% attendance and scored Minimum 50% in MCQ Test are eligible for certification.

12. Attendance

TERNA ENGINEERING COLLEGE

Nerul, Navi Mumbai - 400 706

Department of Civil Engineering Bachelor Year Engineering Academic Year 2023 - 2024 (FH-24) BE (SEM YIN)

raculty Na	me: Mr. Dharmesh Gangani	1	2	3	1	5	8	7	10	T A	Tax	T 44	T	1	T	_	_	_																			2 A
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PRINCIPAL
TERNA ENGINEERING COLLEGE
Navi Mumbai - 400 706







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TERNA ENGINEERING COLLEGE



Faculty Nan	ne: Mr. Dharmesh Gangani	1	2	3	+	5					9	10	11	12	13	14	15	15	17	T	18	13	20	21	22	23	24	25	26	27	28	23	30					% Attend	Marts
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13. Result The marks obtained by students in MCQ test are as follows:

Rol	D. 1	Qui							
No.		01	1	_ 1 `		Quiz	Qui	Z A	VG
A01	dibitay islini	12	02		13	04	05	Ma	arks Remark
A02	Bhoir Sanika Sadanand	7	10		1	8	14		1 Qualified
A03	Gawade Saurabh Kailas		-	1	3			1	0 Qualified
A04	Shahasane Aditya Pravin		-						Disqualified
A05	Walanj Pratik Santosh	8		1:	2		15	1:	
A06	Mukherjee Pranjal	-							Disqualified
A07	Killedar Anurup Anil	9	12	12	2			11	Qualified
A08	Mhatre Sharv Santosh	-	10						Disqualified
A09	Khedkar Pranav Pravin		10			13		11	
A10	The state of the s	11	12	12		4		13	
All	The second second	11					12	12	
A12	- Julius Dukosc	9	12			4		12	Qualified
A13	2 1110011	9	11	11				10	
A14		-	-						Disqualified
A15	Suryawanshi Tejas Dilip	-	9	9	7		14	10	Qualified
A16	Patil Sumit Dinesh		10						Disqualified
A17		-	10	10	12			11	Qualified
	Chandhari Harmita		9	9	10)		9	Qualified
A18	Ganga	12	12	10					
A19		11	13	13	-	_	14	13	Qualified
A20		11	14	12	9	_		11	Qualified
A21	Ambre Anurag Sanjay		14	-	_		15	15	Qualified
A22	Chougule Parth Vinod		9	10	-	_	4.1		Disqualified
A23	Ghaware Sambodh		14	10		_	14	11	Qualified
A24	Dabhade Vijay Sanjay	7	14	14	10	_	12	13	Qualified
A25	Prasad Shubham		12	10	12	_	11	9	Qualified
A26	Kedari Aditya Mangesh	9	8	12	100		14	13	Qualified
A27	Chavan Aishwarya	7	10	6	10			8	Qualified
A28	Mane Sakshi Raju		11	11	12	-		11	Qualified
A29	Koli Sagarika Nitin	7	11	12	0	_		11	Qualified
A30	Badgujar Kalpesh		14	14	8	-		9	Qualified
A31	Chakor Shubham		12	14	13	-	16	14	Qualified
A32	Patil Dhanshree Vikas		12	13	13	-	15	13	Qualified
A33	Dhansay Zaid Zafarullah	11	12	12	14		4	13	Qualified
A34	Mhatre Sahil Ananta		15	15			5	12	Qualified
A35	Singh Ankit Raj Ashok	6	14	14		1-	3	15	Qualified
A36	Pathak Aman Ravindra		15	14		 1	2	11	Qualified
A37	Loke Nimish Gangaram	12	15	15			-	14	Qualified
A38	Shelke Rohit Shrimant	13	15	15	9	1	4	13	Qualified
A39	Gondke Komal	10	12		12	-	-	[]	Qualified Qualified
A40	Kharat Tanishq		ii	11		-		11	Disqualified •
A41	Khandekar Mansi Dilip	12	10	10	14	-		12	Qualified
A42	Patil Tanishq Somnath		14	THE PERSON NAMED IN	77.13	1		14	Qualified
	10		-	The state of	The second	1			Zummed

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A43	Ho	tkar Akshata		10		7	10	9	Qualified
A44	Ma	ahadik Sahil Rajesh							Disqualified
A45	Si	ngh Sahil Deepraj							Disqualified
A46	_	itel Palash Dipen		11	11			11	Disqualified
A47		ongre Hrishikesh		12	12	15	9	12	Qualified
A48		uduka Brijesh		6	6	8	3	6	Disqualified
A49	_	adhav Aditya	9	5	5	15	14	01	Qualified
A50		awane Keshar				15	10	13	Disqualified
A5	-	Bedekar Rohit	6	10	10	11	8	9	Qualified
A5		Pawar Sahil		14	14			14	Disqualified
AS		Wayal Sahil	8			12	12	11	Qualified
-		Parab Rohan Rajan	11	9	9	14		11	Qualified
A:		Sawant Krutika	8	6	6	11	11	8	Qualified
		Pomendkar Shivani	9	5	5			6	Disqualified
-	_			12	12		12	12	Qualified
	57	Nagothanekar Abhay		12	1.24				Disqualified
	58	Thikade Milind Janu		12	8	10		10	Qualified
	159	Dubey Satyajeet	-	8	8	10	11	9	Qualified
	760	Siddamal Kartik	10	14	14		14	13	Qualified
_	161	Malvani Yogesh	10	10	10		10	10	Qualified
	162	Pawar Tejashree		8	8	13	11	10	Oualified
1	463	Gaikar Kajal			13	13	9	11	Qualified
	464	Gharat Siddhi	7	13	12	15	10	12	Qualified
	A65	Phadtare Shubhangi	9	12	12	13	10	12	Disqualified
	A66	Panpaliya Kaustubh		9	9	11	7	9	Qualified
	A.67	Chavan Shweta	11		9	12		12	Qualified
100	A68	Matekar Rohit	11	12	10	15		11	Qualified
	A69	Jadhav Sakshi Sadashiv	7	10	10	1.7			Disqualified
	A70	Kasbe Dhananjay	-	3	3		7	4	Disqualified
	A71	Wani Junaid Ahmad		1 3	3				





Feedback on ADD-ON Course (Exit Course)

BIUDOZ

This form is for collecting feedback on ADD-ON Course (Exit Course) conducted by the Civil Department from January - 24 to April - 24 (FH-24)

This form is automatically collecting emails from all respondence. Change settings

Name of Students *

Short answer text

Roll No *

Short answer text

Batch *

A1

A2

A3

Do you feel ADD-ON Course was beneficial to you?

Yes

No

ADD-ON Course was proficient to increase students' knowledge in Core Subject of Civil Engineering

Yes

No

Ser .

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ADD-ON Course was proficient in answering multiple-choice questions (MCQs) in foundational subjects of civil engineering	the
Yes	
No.	
Did ADD-ON Course was useful in other Competitive Exams '	
Yes Yes	
No.	
Queries regarding subjects were resolved *	
Yes	
No	
How would you rate the way of teaching	
Excellent	
Company Social Company	
Good	
Fair	
Peer	
How do you rate the course content of ADD ON Content f	
Excellent	
್ Very ಡಿಂಪಡೆ	
; Good	

Do you have any suggestion or feedback for us?

Long antwertext

Fair

Poor

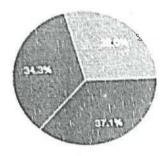
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35 responses



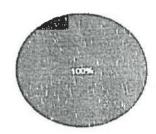
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Do you feel ADD-ON Course was beneficial to you

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D Yes

O No

ADD-ON Course was proficient to increase students' knowledge in Core Subject of Civil Engineering

25 responses

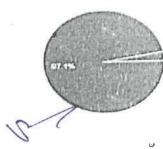


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ADD-ON Course was proficient in answering multiple-chaice questions (MCQs) in the foundational subjects of civil engineering

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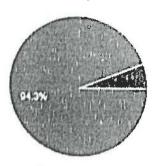
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pid ADD-ON Course was useful in other Competitive Examp-



Queries regarding subjects were resolved 35 responses



How would you rate the way of teaching 35 responses



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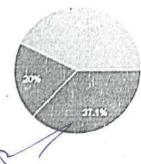
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How do you rate the course content of ADD ON Content 35 <u>responses</u>



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TERNA PUBLIC CHARITABLE TRUST'S

TERNA ENGINEERING COLLEGE

(Approved by AICTE & Affiliated to University of Mumbai)
Plot No. 12, Sector 22, Opposite Railway Station, Nevi Mumbai- 400706, Ph. +91 22 61115444, Fax No.+91 22 61115400

Report on

Value Added Course - Primavera

Enrolled Students

B.E. Civil Engineering

Academic Year:

2023-2024



Organized by

Department of Civil Engineering, Neryl, Navi Mumbai

PRINCIPAL
FERNA ENGINEER COLLEGE
Verul, Navi Mumbai - 400 706



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1. Meeting and Approval 1.1 Meeting

SUMMARY OF MINUTES OF THE MEETING

3.7.2023

With reference to meetings held and Minutes of meeting recorded the summary of minutes of meeting is as below.

The Department of Civil Engineering has planned to conduct an Value Added Course to provide knowledge to students regarding vital subjects of our discipline. The following faculty members were present in the meeting conducted on 3 July, 2023 at Civil HQD Cabin to finalize the Value added course to be offered for this year.

The HOD and the staff members concluded the following Add on Course for the academic year 2023-2024

SL. No.	Name of Value Added Course	Semester	Hours	Staff Incharge	
1.	Value Added Course (Primavera)	VII	15	Poonam Patil	

In the meeting it was decided to prepare the syllabus of the program by the staff in charge within a week from the date of meeting.

- 1) Dr. Priyanka Salunkhe (HOD)
- 2) Jamaluddin M. (IQAC Incharge)
- 3) Poonam Patil (Course Coordinator)

Poonam Patil Course Coordinator

Dr. Privanka Salunkhe HoD Dept. of Civil Engg.

PRINCIPAL ENCINEERI COLLE

eriii, Navi Mumbai - 400 706

TERNA PUBLIC CHARITABLE TRUST'S TERNA ENGINEERING COLLEGE

Date:-09.07.2023

To.

The Principal

Terna Engineering College,

Nerul, Navi Mumbai - 4000706

Subject: - Regarding Permission for conducting Value Added Course Basics on Water Gems &

Primavera.

Respected Sir,

Requirement of proficiency in software has become essential for students. In view of this we have decided to conduct a Value Added Course on Water Gems & Primavera in Association with Bentley Education, USA during the academic year 2023 - 24 for semester-VII students. I request you to provide the permission to conduct the same. The selected course will be useful to students for learning water supply and drainage system & Project planning and management. Instructor of this course will be our faculty.

Kindly provide permission to do the same.

Thanking You.

Yours Faithfully.

Prof. Jamaluddin Maghrabi

AOC Incharge

TERNA ENGINEER OF COLLEGE

Nerul, Navi Municai - 400 706

Dr. Priyanka Salunkhe

HoD

TERNA ENGINEERING COLLEGE, NERUL

Department of Civil Engineering

Department of Civil Engineering

ACADEMIC YEAR 2023 - 2024

1. Title of the course

: Value Added Course (Primavera)

2. Objective of the course

: To make student learn Primavera which is required for

planning and scheduling of construction project.

This will be beneficial to student their final year project.

3. Prerequisite

: CPM & PERT

4. Beneficiary

: Students and Faculties

5. Date & Duration of the course: Throughout the Semester

6. No of hours required

: 15 Hours

7. Internal Resources

: Poonam Patil

8. Internal Assessment

: Assignment

9. Contents of the course

: Enclosed

10. Credits / Certification

: 75% attendance and scored above

50% in Assignment eligible for certification.

11. Venue

: Civil Engineering Software Lab

Mrs. Poonam Patil

Course Coordinator

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Nerul, Navi Mumbai - 400 706

SUA ENGINEER SOLLS

Dr. Priyanka Salunkhe

HoD Dept. of Civil Engg

Terna Public Charitable Trust's Terna Engineering College is one of the well-known and It is located at Nerul, Navi Mumbai on a beautiful 3 acre campus. The institute is affiliated to University of Mumbai, approved by AlCTE and accredited by National Board of Accreditation (NBA). This institution offers 7 UG, 4 PG and 3 PhD courses. Highest quality education is catered with curriculum extension by means of exceptional offerings like Engineering Products and Innovation Center (EPIC), Remote center of IIT Bombay which facilitates student / faculty members to interact with LIT professors through video conferencing, Industry Institute Interaction Cell, Electronics club (collaboration with 25 local electronics SMEs), e-Yantra Embedded Systems and Robotics Lab, Apple lab, Texas Instruments Lab. We are a diverse, talented community united by passion for learning and quest for more. Terna motivates students to make a difference in our campus, in the state, country and around the world.

The Department of Civil Engineering was established in the year 2017. The Mission of Department is to 2.1 About Department promote the disciplines of Planning, Design, Construction, Operation,

Maintenance and Research. It offers students technical knowledge with technique for better utilization of available resources and greater standardization of construction processes required by construction industry. We intend to develop students by giving training to make use of innovative design methods, techniques and practical implementation. Highly qualified and dedicated faculty are recruited and they are always on their toes to guide the students, forming the backbone of the department.

Key Features:

- Well Equipped Laboratories Materials and Concrete Technology, Geotechnical Engineering, Environmental Engineering, Transportation Engineering, Engineering Geology, CAD Laboratory, Surveying Laboratory, Hydraulics and Fluid Mechanics Laboratorles
- Consultancy Services Offered and Fully Equipped With Major Facilities Like Fully Automatic Compression Testing Machine 200 Tons (NABL Accredited), Fully Automatic Universal Testing Machine (UTM 100 Ton- NABL Accredited), Fully Automated Total Station for Professional Surveying
- Consultancy Services Offered for Non-Destructive Testing
- Faculties with Experience in Design and Execution of Residential, Commercial, Oil & Gas, Power Projects
- Faculties with Experience in Research in the Field of Smart Materials & Smart Structures, Pavement Design & Analysis, Geotextile Materials for Soll Stabilization, Geotechnical Engineering, Remote Sensing & GIS

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- Active Mentoring Processes for Continuous Assessment in Academics
- Learning Experience Through Active Consultancy Projects
- Industrial Visits-CIDCO, PWD, MMRDA, Rock Museum Nasik
- Internship for Students (With & Without Stipend)
- International Students Chapter Association & Merit Scholarships
- Expert Lectures by Industry Experts
- NPTEL Courses
- Skill Based, Project Based Learning, Interactive and Interest Based Core Domain Learning
- Patents, Designs and Copyright Development
- Achieved 100 % students intern during winter vacations (2019-2020) in renowned organizations like Airport Authority of India (AAI), Public Work Department (PWD), City and Industrial Development Corporation (CIDCO), Rashtriya Chemical Fertilizers (RCF), American Concrete Institute and so many.

3. About Course

An add on course on Oracle Primavera P6 software has been introduced by the Department of Civil Engineering, Terna Engineering College, Navi Mumbai for B.E.(Civil) students. Oracle Primavera P6 is a project, program and portfolio management tool that's used for planning, managing and executing your project work. It's designed to handle large and small projects in many diverse industries, such as construction, manufacturing, energy, and IT. This course is beyond their regular syllabus. This will be beneficial to students for their project work and ready for industry. Duration of course will be 15 hrs.

4. About Instructor

This course will be conducted by Prof. Poonam Patil faculty of TEC having 3 years teaching experience and Master in Construction Engineering and Management and Certified for Primavera Software.

5. Course Scheme

The marking scheme of this course has been decided at the institute and the departmental level.

Value Added Course:-Primayera

Contact Hours: - 01 per week (Total 15)

Sem. : - VII

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6. Syllabus

Copic No.	Contents	Hours
1	Introduction of software.	1
. 2	Various tools used & various default settings in Primavera.	1
3	Generation of OBS, EPS, New project.	2
4	Creation of Calendar, WBS for the project & Creating and defining activities for the project.	2
5	Assign Resources to the activities & Resource analysis and leveling of the project.	2
6	Creating Baseline to project & preparing grant chart.	2
7	Generation of report & web site.	
8	Planning of G+3 Residential building.	3
115	TOTAL	15

7. Course Objective and Course Outcome

After completion of course the student will be able to plan & schedule for any construction project.

Course Objective

- 1. To learn & understand basic commands of primavera software.
- 2. To prepare a schedule for different activities in the given completion time of project.
- 3. To analyse the project requirement & time management.

Course Outcome

On completion of this course, the students will be able to:

CO1: Understand basic commands & create a project.

CO2: Create calendars, a WBS & Add activities & their relationships.

CO3: Define & assign roles and resources & Analyzing resources.

CO4: Prepare bar chart of different activities.

Nerul, Navi Mumbai - 400 706

Program Outcome

PO 11-Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2: - Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

- PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO 4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO 5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO 6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10: -Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO 11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO 12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcome

PSO 1: - Graduates will be able to plan, analyse, design and drawing and estimate for residential, commercial, industrial and infrastructure projects. They will be able to work on site for supervision of various construction activities.

PSO 2: - Graduates will be able to use different software related to Civil Engineering for developing skills required by the industry.

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8. Mapping CO, PO and POS

Practical No.	Name of Experiment	CO	РО	PSO
1	Introduction of software.	1	1,2,3,5,8,9,1	2
2	Various tools used & various default settings in Primavera.	. 1	2,3,5,8,9,11,	2
3	Generation of OBS, EPS, New project.	1	3,5,8,9,11,12	2
4	Creation of Calendar, WBS for the project & Creating and defining activities for the project.	2	3,5,8,9,11,12	2
5	Assign Resources to the activities & Resource analysis and leveling of the project.	3	3,5,8,9,11,12	2.
6	Creating Baseline to project & preparing grant chart.	3	3,5,8,9,11,12	2
1984. 1880	Generation of report & web site.	4	3,5,8,9,11,12	2
7 8	Planning of G+3 Residential building.	4	3,5,8,9,11,12	2

9. Schedule

POONAM PATIL Day/Time 9:00-10:00 10:00-11:00 11:15-12:15 12:15-1:15 1:15-1:45 1:45-2:45 2:45-3:45 EG A1 PP EG PP EG A3 PP EG A1 PP R-210	3:45-4:45
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10. List of Students

Roll No.	Student Name	Roll No.	Student Name
1 9	GHOLAP VAIBHAV LAHU	39	PATHAK AMAN RAVINDRA
2	BHOIR SANIKA SADANAND	40	LOKE NIMISH GANGARAM
3	GAWADE SAURABIR KAILAS	41	SHECKE ROHIT SHRIMANT
4	SHAHASANE ADITYA PRAVIN	43	GONDKE KOMAL SHASHIKANT
5	WALANI PRATIK SANTOSH	44	KHARAT TANISHQ SUDHAKAR KHARAT
6	MUKHERJEE PRANJAL PARIJAT M	45	KHANDEKAR MANSI DILIP
7	KILLEDAR ANURUP ANIL	46	PATIL TANISHQ SOMNATH
8	MHATRE SHARV SANTOSII	47	HOTKAR AKSHATA JAYSING
9	KHEDKAR PRANAV PRAVIN	48	MAHADIK SAHIL RAJESH
10	PATIL SAHIL RAVINDRA	49	SINGH SAHIL DEEPRAJ
11	VINOY VISMAY LUKOSE	50	PATEL PALASH DIPEN
12	WAGHMARE NILESH BABURAO	51	DONGRE HRISHIKESH
13	MOHITE RUSHIKESH JALINDER	52	DUDUKA BRIJESH
14	MALI SRUSHTI SHIVAJI	53	JADHAV ADITYA
15	SURYAWANSHI TEJAS DILIP	54	LAWANE KESHAR
16	PATIL SUMIT DINESH	55	BEDEKAR ROHIT
17	BHUSARA DIGVIJAY DASHRATH	56	PAWAR SAHIL
19	CHAUDHARI HASMITA GANGA	57	WAYAL SAHIL
20	BHUSARA ANJALI SUNIL	58	PARAB ROHAN
22	KOPPULA ASHOK SATISH	59	SAWANT KRUTIKA
23	AMBRE ANURAG SANJAY	60	POMENDKAR SHIVANI
24	CHOUGULE PARTH VINOD	61	NAGOTHANEKAR ABHAY
27	DABHADE VIJAY SANJAY	63	DUBEY SATYAJEET
28	PRASAD SHUBHAM SURESHKUMAR	64	SIDDAMAL KARTIK
29	KEDARI ADITYA MANGESH	65	MALVANI YOGESH
30	CHAVAN AISHWARYA FATTESING	66	PAWAR TEJASHREE
	MANE SAKSHI RAJU	67	GAIKAR KAJAL
31	KOLI SAGARIKA NITIN	68	GHARAT SIDDHI
32	BADGUJAR KALPESH RAJENDRA	69	PHADTARE SHUBHANGI
33		71	CHAVAN SHWETA
34	CHAKOR SHUBHAM RAMKRUSHIN	72	MATERAR ROHIT
35	PATIL DHANSHREE VIKAS PATIL		
36	DHANSAY ZAID ZAFARULLAH	75	JADHA Y S AKSHI
37	MHATRE SAHIL ANANTA	76	KASBE DIJANANJAY MAHADEV
38	SINGH ANKIT RAJ ASHOK	77	WANI JUNAID

PRINCIPAL TERNA ENGINEERING COLLEGE

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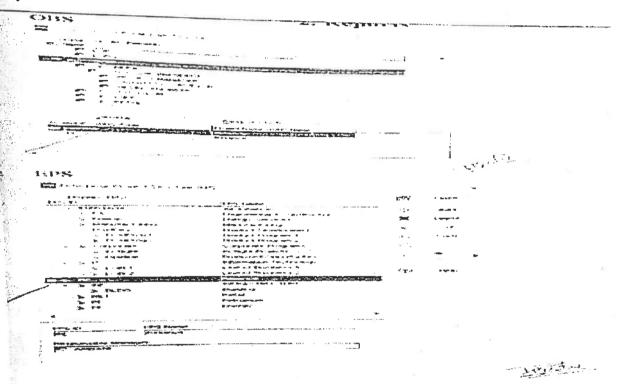


12. Assignments

12.1 Assignment No.1

Prepare Organizational Breakdown Structure (OBS) & Enterprise Project Structure (EPS)

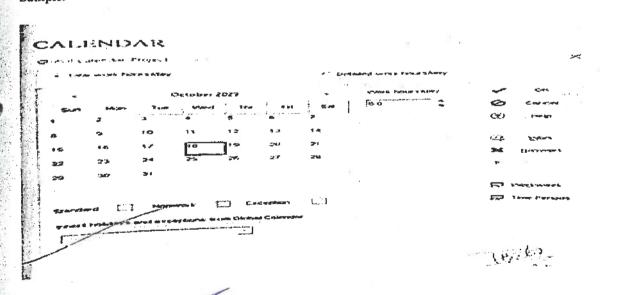
Sample:



12.2 Assignment No. 2

Creating a new calendar

Sample:



TERNA ENGINEERING COLLEGE Nerul, Navi Mumbai - 400 706



Assignment No. 3

ite a new Project

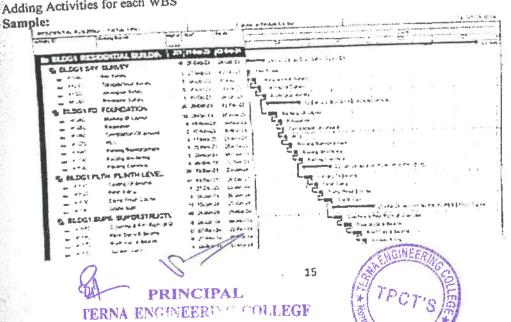
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12.4 Assignment No. 4 Creating WBS for above project Sample:

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12.5 Assignment No. 5
Adding Activities for each WBS



Nerul, Navi Mumbai - 400-706

6 Assignment No. 6

signing resources for each activity

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13. Rubrics for Evaluation TW

Term Work

	Head	Marks (50)
1	Attendance	10
2	Assignment	40

Attendance

	Head	Marks
1	91% onwards	10
_	81%-90%	9
_	75%-80%	8

Assignments

40 marks for each assignment is divided under following heads

1346	Head	Marks	
1	Understanding	15	
-	Performance	15	
	On time submission	10	

Credits / Certification: Those who have 75% attendance and scored above 50% in practical are eligible for certification.

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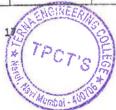
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14. Evaluation of TW

Term work was assessed based on Assignment submission as per Rubrics mentioned above. Practical examination was carried out based on the types of Assignment questions. The marks obtained by students in TW are as follows:

Roll No.	Student Name	Attendance	Assignmen
. A01	GHOLAP VAIBHAY LAHU	8	34
A02	BHOIR SANIKA SADANAND	8	32
A03	GAWADE SAURABH KAILAS	0	8
A04	SHAHASANE ADITYA	9	30
A05	WALANI PRATIK SANTOSH	9	25
A06	MUKHERJEE PRANJAL	8	20
A07	KILLEDAR ANURUP ANIL	8	20
A08	MHATRE SHARV SANTOSH	9	32
A09	KHEDKAR PRANAV PRAVIN	10	36
- 1	PATIL SAHIL RAVINDRA	0 /	8
A10	VINOY VISMAY LUKOSE	10	39
AII	WAGHMARE NILESH	8	25
A12	MOHITE RUSHIKESH	0	8
A13	MALI SRUSHTI SHIVAJI	9	30
A14	SURYAWANSHI TEJAS DILIP	8	20
A15	PATIL SUMIT DINESH	0	7
A16	BHUSARA DIGVUAY	9	37
A17	CHALLED LA DI STA CHATTA	10	36
A19	DIVISADA ANUALI CUNTI	0	15
A20	HORDLE A ACHOY SATISH	9	20
A22	LINE AND AND ACCAMIAN	0	12
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A24	The second secon	8	30
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ACCUPATION OF THE PROPERTY OF	THE ADITYA MANGESH	10	35
A3	CITALIAN ARCHWADVA	8	25
A2 A3	AAAND CANCHI DANI	9	34
A	WALLOA CARILLA MITIN	9	35
	33 BADGUJAR KALPESII	8	20
	34 CHAKOR SHUBHAM	8	20
A	35 PATIL DHANSHREE VIKAS	9	32 20
	36 DHANSAY ZAID ZAFARULLAH	8 8	20
A A	37 MHATRE SAIIL ANANTA	0	10
	38 SINGH ANKIT RAJ ASHOK	MOINERA	

PRINCIPAL
TERNA ENGINEER OF COLLEGE
Nerul: Navi Mumbar - 400 706



A39	PATHAK AMAN RAVINDRA	10	. 35
A40	LOKE NIMISH GANGARAM	0	8
A41	SHELKE ROHIT SHRIMANT	9	33
A43	GONDKE KOMAL	8	34
A44	KHARAT TANISHQ SUDHAKAR	9	31
A45	KHANDEKAR MANSI DILIP	8	30
A46	PATIL TANISHQ SOMNATH	8	20
A47	HOTKAR AKSHATA JAYSING	9	30
A48	MAHADIK SAHIL RAJESH	0	10
A49	SINGH SAHIL DEEPRAJ	0	10
A50	PATEL PALASH DIPEN	9	34
A51	DONGRE HRISHIKESH	10	38
A52	DUDUKA BRIJESH	9	30
A53	JADHAV ADITYA	8	36
A54	LAWANE KESHAR	8	35
A55	BEDEKAR ROHIT	10	38
A56	PAWAR SAHIL	8	35
A57	WAYAL SAHIL	8	35
A58	PARAB ROHAN RAJAN	10	37
A59	SAWANT KRUTIKA	10	35
A60	POMENDKAR SHIVANI	9	30
A61	NAGOTHANEKAR ABHAY	8	30
A63	DUBEY SATYAJEET	8	20
A64	SIDDAMAL KARTIK	9	33
Balanta ace	MALVANI YOGESH	8	38
A66	PAWAR TEJASHREE	8	35
A67	GAIKAR KAJAL	8	35
A68	GHARAT SIDDHI	8	35
A69	PHADTARE SHUBHANGI	8	32
A67 A68 A69 A71	CHAVAN SHWETA	8	30
A72	MATEKAR ROHIT	9	30
A75	JADHAV SAKSHI	0	10
A76	KASBE DHANAJAY MAHADEV	0	10
A77	WANI JUNAID		





Results

oll No.	Student Name	Qualified
A01	GHOLAP VAIBHAV LAHU	Qualified
A02	BHOIR SANIKA SADANAND	Qualified
A03	GAWADE SAURABH KAILAS	Not Qualified
A04	SHAHASANE ADITYA	Qualified
A05	WALANJ PRATIK SANTOSH	Qualified
A06	MUKHERJEE PRANJAL	Qualified
A07	KILLEDAR ANURUP ANIL	Qualified
A08	MHATRE SHARV SANTOSH	Qualified
A09	KHEDKAR PRANAV PRAVIN	Qualified
A10	PATIL SAHIL RAVINDRA	Not Qualified
	VINOY VISMAY LUKOSE	Qualified
A11	WAGHMARE NILESH	Qualified
A12	MOHITE RUSHIKESH	Not Qualified
A13	MALI SRUSHTI SHIVAJI	Qualified
A14	SURYAWANSHI TEJAS DILIP	Qualified
A15	PATIL SUMIT DINESH	Not Qualified
A16	BHUSARA DIGVUAY	Qualified
A17	CHAUDHARI HASMITA	Qualified
A19	THE PARTY OF THE P	Not Qualified
A20	UPITE A LOUIS CATICU	Qualified
A22	AND THE ANTIDAG SANIAV	Not Qualified
A23	THE PARTY WINDD	Qualified
A24	- CONTROL MILAY CANTAV	Qualified
A2*	The state of the s	Qualified
A2	THE ADDITION MANGESH	Qualified
A2	THE STATE OF THE S	Qualified
A3	PARTIE BAYOU DAIII	Qualified
A3	WOLLS CAPIKA NITIN	Qualified
A3	PARCHIAR KAI PESH	Qualified
A.	CHAKOR SHUBHAM	Qualified
	PATIL DHANSHREE VIKAS	Qualified
	36 DHANSAY ZAID ZAFARULLAH	Qualified
	37 MHATRE SAHIL ANANTA	Qualified
-	38 SINGH ANKIT RAJ ASHOK	Not Qualified Qualified
	39 PATHAK AMAN RAVINDRA	Not Qualified
A	40 LOKE NIMISH GANGARAM	Qualified
1	41 SHELKE ROHIT SHRIMANT	Qualified
	GONDKE KOMAL	Qualified
	KHARAT TANISHQ SUDHAKAR	Qualified
	445 KHANDEKAR MANSI DILIP	1

PRINCIPAL TERNA ENGINEERUM COLLEGE Nerul, Navi Munibai - 400 706



A46	PATIL TANISHO SOMNATH	Qualified
A47	HOTKAR AKSHATA JAYSING	Qualified
A48	MAHADIK SAHIL RAJESH	Not Qualified
A49	SINGH SAHIL DEEPRAL	Not Qualified
A50	PATEL PALASH DIPEN	Qualified
A51	DONGRE HRISHIKESH	Qualified
A52	DUDUKA BRUESH	Qualified
A53	JADHAV ADITYA	Qualified
A54	LAWANE KESHAR	Qualified
A55	BEDEKAR ROHIT	Qualified
A56	PAWAR SAHIL	Qualified
A57	WAYAL SAHIL	Qualified
A58	PARAB ROHAN RAJAN	Qualified
A59	SAWANT KRUTIKA	Qualified
A60	POMENDKAR SHIVANI	Qualified
A61	NAGOTHANEKAR ABHAY	Qualified
A63	DUBEY SATYAJEET	Qualified
A64	SIDDAMAL KARTIK	Qualified
A65	MALVANI YOGESH	Qualified
A60	PAWAR TEJASHREE	Qualified
A6	7 GAIKAR KAJAL	Qualified
A6		Qualified
. A6	9 PHADTARE SHUBHANGI	Qualified
A7	CHAVAN SHWETA	Qualified
A'	72 MATEKAR ROHIT	Qualified
A	75 JADHAV SAKSHI	Qualified
A	76 KASBE DHANAJAY MAHADEV	Not Qualified
A	77 WANI JUNAID	Not Qualified





Questions

Responses 🚇



Settings

ADD ON COURSE (PRIMAVERA) SH-23

This form is for collecting feedback for the skill based training program conducted by the Civil Engineering Department from July 23 to October 23. Students should give a genuine feedback

This form is automatically collecting entails from all respondents. Change settings

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Short answer text

Name of Student *

Short answer text

Roll No. *

Short enawer text

Batch *

C AT

Do you feel Primavera ADD ON COURSE was beneficial for you? *



