## GLIMPSES OF COLABORATIVE SITE VISITS AND FIELD TRAININGS

### CONDUCTED IN AY 2021-22



A site visit to Panshet Dam to study different components





A site visit to Panshet Dam to have interaction with Section Engineer, Water Resource Department.



A site visit to study Structural Components with reference to RCC slab





A site visit to study hazardous waste management practices and interaction with officials of Pune Municipal Corporation



A site visit to study Air Pollution control Devices



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A site visit to study Air Pollution control Devices Design and Manufacturing



A site visit to study Wastewater Treatment Plant operated by Pune Municipal Corporation



A site visit to study Water Treatment Plant operated by Pimpri Chinchwad Municipal Corporation



A site visit to study Hot Mix Bituminous Plant



A site visit to study Gantry Girder and its Design



A Virtual Site visit in association with Karad Municipal Corporation and Alumni



A field traing for lining out of building





A field traing for builidng construction practices



On-site training of Ready Mix Concrete Plant







Record No.: ZCOER-ACAD/R/39

Revision: 00

Date:01/04/2021

### **Collaborative Site Visits**

Sr. No	Date of Visit	Class	No. of students	Subject	Location
1	18/08/2021	BE	82	Transportation Engineering	Hot mix plant, Yerwada
2	22/11/2021	TE	34	DRCS	Nakoda Metal, Bhosale Industrial Estate, Narhe.
3	22/11/2021	TE	37	DRCS	Diligent Engineering, Malhari Bhosale Industrial Estate, Narhe
4	26/03/2022	TE	63	DRCS	DG Developers, Vision Properties, Dhayari.
5	10/03/2022	SE	30	Solid Waste Management	Posco Industries, Pune
6	11/03/2022	TE	57	Waste Water Engineering	Naidu Treatment Plant
7	17/03/2021	SE	50	Concrete Technology	Pragati Enterprises, RMC Plant, Katraj
8	25/03/2021	BE	67	Air Pollution Control	Katraj Dairy
9	28/03/2022	BE	67	Irrigation	Panshet and Vasargaon Dam



Dept of Civil Engineering ZES's Zeal College of Engineering & Research Narhe, Pune-411 041

Date- 18/08/2021

The Executive Engineer Road Department PMC, Pune

Subject: Permission to virtual visit (Online) Hot mix plant on 19/08/2021

Respected Sir,

Zeal College of engineering and research, Narhe is one of the renowned institutions affiliated to Savitribai Phule Pune University. Institute always aims to enable the students to be quality professionals by means of practical exposure at various workplaces and industries.

We would like to request you to allow our B. E. Civil Engineering students to virtual visit Hot mix to study operation and processes carried at plant.

As a part of curriculum of university the students are supposed to prepare a detailed report based on the visit.

Kindly provide suitable date and timings to visit the plant for a batch of 82 students.

We will be highly obliged if you could spare some of your valuable time along with our faculty and students during the visit.

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Kindly permit the visit for the benefit of our student and faculty.

Thanking you in anticipation.

Yours,

**Course Faculty** 





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Dept of Civil Engineering ZES's Zeal College of Engineering & Research Narhe, Pune-411 Mil

To,

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Title	Trar	Transportation Engineering												
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Summary	The work loca	The site visit was conducted to aware students about the function, principle $\infty$ working of hot mix plant and various operations performed on hot mix plant location.												
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Permission for Industrial Visit

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Record No .: ZCOER-ACAD/R/

Revision: 00

Date:01/04/2021

Date: - 20/11/2021

To, Nakoda Metal. Bhosale Industrial Estate, Narhe, Pune 411041.

Subject: - Permission for Industrial Visit on 22/11/2021.

Respected Sir,

Zeal College of engineering and research, Narhe is one of the renowned institutions affiliated to Savitribai Phule Pune University. Institute always aims to enable the students to be quality professionals by means of practical exposure at various workplaces and industries.

Our students from T E civil (total students-82) are interested to visit Industrial building, Roof Truss, Gantry Girder. So student will able to understand the different aspects of Civil engineering.

Kindly permit the visit for the benefit of our student and faculty members Thanking You

Prof. A. V. Wakchaure Assistant Professor Assistant Professor Dept. of Civil Engineering ZES's Zeal Collect of Engineering & Research, Narhe, Pune-41.

Remarks:

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Dept of Civil Engineering ZES's Zeal College of Engineering & Research Narhe, Pune-411 041





## ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH NARHE | PUNE -41 | INDIA



Record No.: ZCOER-ACAD/R/

Revision: 00

Site Visit Undertaking

Department: Civil EngineeringSemester: 1Academic Year: 2021-22Class: BEDiv: NADate: 22/11/2021

We UNDERSIGNED, hereby declare that study visit arranged and we all are abide to follow rules and regulation regarding the same.

It will be our responsibility to reach in time and safely and maintain all discipline on the site. Society, College, staff (teaching – non teaching) will not be responsible for any circumstances occurred due to my negligence during site visit.

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Roll No.	Name of Students	orga	B111042	KODAG PRADNYA VASANT	1 dias
B111001	ABHYANKAR VARUNRAJ VILAS		B111043	KUKADE VEDANT BALASAHEB	At.IL
B111002	BANKAR SAKSHI SANJAY		B111044	KULKARNI SNEHAL NITIN	TAUTO
B111003	BHOJ SHREYASH MAHADEV	Table	DILLOAS	KUMBHAR ABHISHEK SANTOSH	Trumb
B111004	BHOSALE AISHWARYA GANESH	1000	BILLIO45	KUSHE TEJAS PRAKASH	la t
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B111010	CHAVAN NATHSINHA YUVRAJ		B111051	MORE ABHISHEK MADAG	
B111011	CHAVAN SHARWIN KAILASH		B111052	MORE RAHUL POPAL	1
B111017	DAHIFALE TUSHAR MARUTI	- 10	B111053	MOTEWAR AVINASH MAROTIKAO	1
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B111018	DEVKATE VISHAL TATTTAGO	Dato	B111060	PANDHARE AKSHAY VUAY	
B111019	DHOLE TUSHAR MUKUND	1 the	B111061	PASALKAR SAKSHI DATTATRAYA	
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B111021	GADE ANIKET RAJENDRA		0111062	DATH LAVESH DAVINDDA	Tali
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B111024	GUTTE ASHWINI ASHOK	ANUK	8111065	PATIL NILESH CHIGAGAN	1 1
B111025	HAJARE OMKAR BABAN	depend	0111066	PATIL PALLAYI YINAYAR	
B111026	ICHAKE PRATIK PRAVIN	200000	1111067	PHATE SRUSHTI CHINTAMANI	and
B111027	INGOLE KETAKI KALIDAS	Ketab	B111064	PILANKAR SONAM PRAVIN	-
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B1110.56	VAREANDE SAHIL NATHA		B111078	SHINDE MANDAR HEMANT	-
B111037	KARKANDE SHITE NKA BABURAO		B111079	SHINDE SURAJ ANANDRAO	-
B111038	WARLENGE CONTAR PANDURANG		B111080	SHIVSHARAN ARNKYA LAAMAA	
B111039	KAKNE OMRAATHMESH VUAY	24000	B111081	TAPKEER VISHAL SANJAY	Ties
B111040	KENDALE PRATI DADASO	ghant	B111082	VASAVE VIRENDRA JALAMARTIA	
B111041	KHOPADE PRITI DADASS		B111083	YAMGAR HARSHYARDHAR AR	







Record No.: ZCOER-ACAD/R/

Revision: 00

Date:01/04/2021

Permission for Industrial Visit

Date: - 20/11/2021

To: Diligent Engineering, Malhari Bhosale Industrial Estate, Narhe, Pune 411041.

Subject: - Permission for Industrial Visit on 22/11/2021.

Respected Sir,

Zeal College of engineering and research, Narhe is one of the renowned institutions affiliated to Savitribai Phule Pune University. Institute always aims to enable the students to be quality professionals by means of practical exposure at various workplaces and industries.

Our students from T E civil (total students-82) are interested to visit Industrial building, Roof Truss, Gantry Girder. So student will able to understand the different aspects of Civil engineering.

Kindly permit the visit for the benefit of our student and faculty members Thanking You

Prof. A. V. Wakchaure Assistant Professor Civil Engg. Dept.

Remarks:

raske Head of the Department

Dept of Civil Engineering ZES's Zeal College of Er jineering & Research Narhe, Pune-411 041





EARCH	(25)
Date 01/04	/2021

Record No.: ZCOER-ACAD/R/39

Revision: 00

Date: 22-11-2021

## SITE VISIT UNDERTAKING

We UNDERSIGNED, hereby declare that study visit arranged and we all are abide to follow rules and

It will be our responsibility to reach in time and safely and maintain all discipline on the site. Society, College, staff (teaching – non teaching) will not be responsible for any circumstances occurred due to my negligence

iuring sate	VISIL.		-	Name of Student	Sign
Soll No	Name of Student	Sign	Roll No	CHICE IIVAN SHRIPATI	
1111001	AKHADE ATHARVARAJ NARESH	pose	T111017	GHIOE JIVAN SHALL MAHESH	
T111002	BANARASE SHUBHAM ARVIND		T111018	GHONE GITANDALI MANOL	
T111003	BATHE PRASAD NANA		T111019	GHUDE PRAJAKTA MANO	
T111004	BELURE RUSHIKESH KASHINATH		T111020	GHUGE SAURABH PANJABRAO	
T111005	BODAKE RUSHIKESH VISHNU		T111021	GONDAL VIKRAM VINOD	
T11100/	PORSE SUVASH YASHWANT		T111022	GONGE GAURAV SHANKAR	
T111006	CHARWAD SARTHAK KULDEEP		T111023	HODLURKAR VALLABH UMESHRAO	sit
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T111009	CHAVAN SANGIGUN INDRAJEET		T111026	JAYBHAYE PRACHI VITTHAL	
T111010	DALVI KUSHIKLIII MUTOHAV		T111027	KADAM ASMIT ANAND	
T111011	DARKUNDE GAUKAV ODDAAV	-		WARDE SUBVANA SHAHADEV	0
T111012	DESHMUKH TEJRAJ BHOLANATH		T111028	KAKDE SHIVAM SHAHADEV	-
T111013	DEVKATE ABHISHEK TANAJI		T111029	KALE ANIKET RAMCHANDRA	
T111014	GAVIT PUJA NAMVANT		T111030	KAMBLE PRANALI MARUTI	
T111014	GAWADE ROHIT ZUNJAR	Reduct	T111031	KARALE MOHAN SHIVAJI	
T111016	GHATULE AKASH EKNATH	Grand	T111032	KARLE RUSHIKESH VILAS	





EARCH	25
Date:01/04	/2021

Record No.: ZCOER-ACAD/R/39

Revision: 00

Date: 22-11-2021

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	Name of Student	Sign	Roll No	Name of Student	
Roll No	Name of Student	Collection of the second	T111049	PATIL BHAGYASHRI VIJAY	Batil
1111033	KENDRE PRASHANT DAYANAND		1111042		
T111034	KHAIRMODE ABHISHEK BHANUDAS		T111050	PATIL HARSHADA VINOD	
T111035	KHAN NOMAN KADIR		T111051	PATIL MAHADEV NIVRUTTI	
T111036	KHEMNAR RAVINDRA MARUTI		T111052	PATIL NALIN SURESH	
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T111030	LOKARE SNEHA KERABA	0.11	T111055	55 PATIL TANMAY HANUMANT	
1111039	LOKARE TUSHAR BABAN	Brewer	T111056	56 PATIL VISHAL RAM	
1111040	LONARE TOSHAN DADA		T111057	PAWAR SHRENIK BAPU	-
111041	LONDHE POOJA NAGESH	GART	T111058	POTE ABHIJEET RAMESH	1.th
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r111043	MORE TANESH KASHINATH		1111059	KAKESH KAJENDIKA LAD	
T111044	MOTE PRANAV KISAN	SIRAP	T111060	RASKAR DIPALI DILIP	
111045	NACHAN DIVYA SATISH	Sinto	T111061	RATHOD SAURABH RAJKUMA	R
F111046	NADGE ATHARVA RAHUL		T111062	SABLE BHUPESH KANHAIYAL	.AL
Г111047	NEVE NANDINI SUNIL	Alm	T111063	SANTDARSHAN SURESH GUR	AV
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## ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH NARHE | PUNE -41 | INDIA

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Record No.: ZCOER-ACAD/R/39

Date:01/04/2021

Date: 22-11-2021

# SITE VISIT UNDERTAKING

Revision: 00

We UNDERSIGNED, hereby declare that study visit arranged and we all are abide to follow rules and

regulation regarding the same. It will be our responsibility to reach in time and safely and maintain all discipline on the site. Society, College, staff (teaching - non teaching) will not be responsible for any circumstances occurred due to my negligence

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Roll No	Name of Student	optinte
T111065	SHINDE SANDEEP CHANDRAKAN I	ival
T111066	SHINDE SOHAM AJAY	Anti
T111067	SHINDE SURAJ ANANDA	
T111068	SHIVAM SATISH SHENDGE	Sim
T111069	SINGH PRASHANT NARENDRA	Rigg
T111070	SURAVASE SURAJ RAJENDRA	Sweet.
T111071	TADAVI AFRIN RASHID	
T111072	TAPASE VINAY ANAND	
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T111077	VISHWAS OMKAR MOHAN	aw.
T111078	VYAVAHARE VISHAL ARUN	
T111079	WAGHAMARE SANKET DHANANJAY	
T111080	WAGHMARE SARVADEEP SANJAY	Saughans
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#### Record No .: ZCOER-ACAD/R/

Revision: 00

Date:01/01/2021

Date: 24-03-2022

Site Visit Permission

To,

Senior Engineer, DG Developers, Vision Properties, Dalviwadi, Baragini mala, Dhayri 41.

Subject: Permission to avail site visit at DG Developers, Vision Properties, Dalviwadi, Baragini mala, Dhayri 41

Respected Sir,

Zeal College of engineering and research, Narhe is one of the renowned institutions affiliated to Savitribai Phule Pune University. Institute always aims to enable the students to be quality professionals by means of practical exposure at various workplaces and industries.

We would like to request you to allow our Civil Engineering Students and faculties for Site Visit to DG Developers, Vision Properties, Dalviwadi, Baragini mala, Dhayri 41. As a part of curriculum of Savitribai Phule Pune University the students are supposed to prepare a detailed report based on the visit.

Kindly provide suitable date and timings to visit the plant for two faculties who will arrange the virtual site visit for the students

Further we assure that there will not be any kind of recording in either format. The report generated will be used purely for academic purpose. All safety measures will be strictly followed by our faculties.

We will be highly obliged if you could depute any technical person along with our faculty during the visit.

Kindly permit the visit for the benefit of our student and faculty.

Thanking you in anticipation.

Anaokar

lead-Civil Department

NOD

Dept of Civil Engineering ZES's Zear Callege of Engineering & Research Name, Pune-411 041

Yours,



M/s. D. G. DEVELOPERS S. No.132, Dalviwadi, Sinhgad Rd., Nanded Phata, Dhayari, Tel. Havell, Dist. Pune-411 041.



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# SITE VISIT UNDERTAKING

Department: Civil Engineering Class and Div.; TE Semester: II Subject: DRCS Academic Year: 2020 -2021 Date: 26-03-2022

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We UNDERSIGNED, hereby declare that study visit arranged and we all are abide to follow rules and

It will be our responsibility to reach in time and safely and maintain all discipline on the site. Society, College, staff (teaching – non teaching) will not be responsible for any circumstances occurred due to my negligence during site visit.

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Roll No	Name of Student	Sign	Routto	CHUDE PRAJAKTA MANOJ	Forthe
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T111002	BANARASE SHUBHAM ARVIND	James	T111020	GHUGE SAURABH PANJABRAO	A.
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1111008	CHAVAN MAHESH NAMDEO	Ethanda	T111027	KADAM ASMIT ANAND	Abs
T111009	CHAVAN SANGRAM RAJARAM	Schar	T111029	KAKDE SHIVAM SHAHADEV	DA
T111010	DALVI RUSHIKESH INDRAJEET	PEDAC	1111028	KARDE SHITTLE BAMCHANDRA	13.50
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T111015	GAWADE ROHIT ZUNJAR	6940	T111033	KENDRE PRASHANT DAYANANI	En
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T111018	GHONE GITANJALI MAHESH	And U.S.	TTHORE	KHEMNAR RAVINDRA MARUTI	P

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## ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH NARHE | PUNE -41 | INDIA

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14/	2021

Record No .: ZCOER-ACAD/

Revision: 00

Date:01/0

## SITE VISIT UNDERTAKING

Department: Civil Engineering Class and Div.: TE

Semester: II

Academic Year: 2020 -2021 Date: 26-03-2022

Subject: DRCS

We UNDERSIGNED, hereby declare that study visit arranged and we all are abide to follow rules and It will be our responsibility to reach in time and safely and maintain all discipline on the site. Society, College,

staff (teaching - non teaching) will not be responsible for any circumstances occurred due to my negligence Name of Student luring site visit

Roll No     Name of Student     Jun     TII 1055     PATIL TANMAY HANCHMENT       111037     KOLEKAR SOURABH SHAHAJI     TII 1055     PATIL VISHAL RAM     (1)       111038     LOHOKARE ABHISHEK SANJAY     TII 1056     PATIL VISHAL RAM     (1)       111039     LOKARE SNEHA KERABA     TII 1057     PAWAR SHRENIK BAPU     (1)       111040     LOKARE TUSHAR BABAN     TII 1058     POTE ABHIJEET RAMESH     (1)       111041     LONDHE POOJA NAGESH     TII 1059     RAKESH RAJENDRA LAD     (1)       111042     MAIDEO KEDAR RANGANATH     TII 1060     RASKAR DIPALI DILIP     (1)       111043     MORE TANESH KASHINATH     TII 1060     RASKAR DIPALI DILIP     (1)       111044     MORE TANESH KASHINATH     TII 1060     RASKAR DIPALI DILIP     (1)       111045     NACHAN DIVYA SATISH     TII 1062     SABLE BHUPESH KANHAIYALAL       111046     NACHAN DIVYA SATISH     TII 1063     SANTDARSHAN SURESH GURAV       111047     NEVE NANDINI SUNIL     TII 1065     SHINDE SANDEEP CHANDRAKANT       111048     PARAB NAVIN NARESH     TII 1066     SHINDE SURAJ ANANDA       111049     PATIL BHAGYASHRI VIJAY     Statl     TII 1068     SHIVAM SATISH SHENDGE       111049     PATIL BHAGYASHRI VIJAY     Statl     TII 1068     SHIVAM	, she v	VISI.	Sign	Roll No	MANT	ganny
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### ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH NARHE | PUNE -41 | INDIA

Record No .: ZCOER-ACAD/

Revision: 00

Date:01/04/2021

## SITE VISIT UNDERTAKING

## Department: Civil Engineering Class and Div.: TE

Semester: II Subject: DRCS

Academic Year: 2020 -2021 Date: 26-03-2022

We UNDERSIGNED, hereby declare that study visit arranged and we all are abide to follow rules and

It will be our responsibility to reach in time and safely and maintain all discipline on the site. Society, College, staff (teaching - non teaching) will not be responsible for any circumstances occurred due to my negligence Clan

during si	te visit.	0	Doll No.	Name of Student	Sign
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पुणे महानगरपालिका आरोग्य अधिकारी कार्यालय अग्न व परवाना विभाग जा.क.एचएलओ/ २३१८ दि. ०९/०३/ २०२२

प्रती, झील एज्युकेशन सोसायटी झील कॉलेज ओफ इंजिनीअरिंग एन्ड रिसर्च सेंटर पुणे ४११०४१

> विषय :-पुणे मनपाच्या जैव वैद्यकीय कचरा प्रकल्पास भेट देणे बाबत. संदर्भ :- आरोग्य कार्यालयाकडील आक्र/एच.एल/.४९१५दि.०७.०३.२०२२ चे पत्र.

झील एज्युकेशन सोसायटी झील कॉलेज ओफ इंजिनीअरिंग एन्ड रिसर्च सेंटर, नव्हे, पुणे यांना आपल्या संस्थेच्या जैव वैद्यकीय कचरा विल्हेवाट प्रकल्पास भेट देण्यासाठी परवानगी मिळणेबाबत मागणी केलेली आहे.

तरी पुणे मनपा च्या आरोग्य विभागामार्फत संदर्भांकित पत्रानुसार पुणे महानगरपालिकेच्या कैलास स्मशानभूमी, डॉ.नायडू हॉस्पिटल जवळ येथील जैव वैद्यकीय कचरा प्रकल्पास भेट देण्यास परवानगी दि. १०/०३/२०२२ रोजी देण्यात येत आहे. तसेच पाहणी केल्यानंतर त्याचा अहवाल आपले संस्थेमार्फत आमचे कार्यालयाकडे सादर करावा ही विनंती.

कळावे

(डॉ मेनिर्षा विनीद नाईक) सहाय्यक आरोग्य अधिकारी मिर्पुणे महानगरपालिका

प्रत :- माहितीकरिता व कार्यवाहीसाठी मे.पास्को एन्व्हायर्नमेंटल प्रायव्हेट लिमिटेड





Revision: 00



Record No.: ZCOER-ACAD/R/059

Date

Date:01/04/2021

#### Site Visit Report

Department: Civil Engineering	Academic Year: 2021-22	Semester: II
f and a star bugineering	Actual and a second second	Date: 10/03/2022

To,

#### Head of the Department,

Subject: Submission of SWM site visit report for Sem II of Year 2021-2022

Respected Sir,

I am submitting the report of SWM Hazardous site visit report conducted on 10/03/2022 at Poascco Industries Pune. I request you to note the activities and observations during session conduction.

Site visit started at 09.30 AM with site introduction given by Prof. C. R. Parab & Mr. Singh. Total 30 students were present for site visit from TE Civil class.

Activity 1: Prof. S. D. Redekar introduced about site visit topic and location to all students.

Activity 2: Study of various features of hazardous waste management plant has been observed during the visit.

Activity 3: Specialties of hazardous waste plant have been studied like different units, transport facility, incinerator units were observed.

Activity 4: The visit was concluded with vote of Thanks given by Kaushal Vatari & asked for feedback of the session.

Photographs of conducted activities are attached below:





Hazardous Waste Plant



Explanation of unit by Singh Sir



Posco Plant Presentation

Activity : Site Visit

Attendee: 30 (SE)

Subject Teacher

CED



Academic Coordinator

CED



CED

Academic Coordinator Department of Civil Engineering Zeal College of Engineering & ResearchES's Zeal College of Engineering & ResearchES's Zeal College of Engineering Narhe, Pune-411041 & Research, Narhe, Pune-4-





## अधिक्षक अभियंता मलनिःसारण (बिद्युत) विभाग पुणे महानगरपालिका

पुणे महानगरपालिका भवन, रुम नं. १२४, शिवाजी नगर पुणे- ४११००५ कार्यालय : (०२०) २५५०१३७७/२५५०१३७४

> जावक क. 2.3060 दिनांक - CI 31 2022

प्रसि, Dr.G.S.Anaokar Dept of Civil Engineering Zes's Zeal College of Engineering & Researc, Narhe, Pune 411041

यास

विषयः – नवीन नायडू मैलापाणी शुद्धीकरण केंद्र येथे शैक्षणिक प्रशिक्षण दरम्यान पाहणीसाठी परवानगी मिळणेबाबत.

संदर्भ :- आपले पत्र आ.क.२२३० दि.९/३/२०२२

आपले कॉलेजमधील अभ्यासक्रमासाठी संदर्भाकित पत्रान्वये नवीन नायडू मैलापाणी शुद्धीकरण केंद्र, पुणे या प्रकल्पावर शैक्षणिक पाहणीसाठी परवानगी मागितली आहे.दि.११/३/२०२२ व दि.१२/३/२०२२ रोजी प्रत्येकी ४१ विद्यार्थी व २ स्टाफसह सकाळी १०.३० वाजता सदर प्रकल्पाला भेट देण्याची परवानगी खालील अटी व शर्तीस अधिन राहून आपणांस देणेत येत आहे.

### अटी व शर्ती

- 9) पुणे शहरातील विविध भागातून येणारे मैलापाणी शुद्धीकरण करून नदीमध्ये सोडणेत येते. त्यासाठी कमी अधिक क्षमतेची प्रक्रिया केंद्रे उभारणेत आली आहेत सदर प्रकल्पात विविध टप्प्यांमध्ये मैलापाण्यावर प्रक्रिया करणेसाठी डायजेस्टर, क्लॅरिफायर, एरिएटर, सेंट्रीफ्युज, डिकॅन्टर, सी.सी. टी. (क्लोरिनेशन प्लॅन्ट) इ प्रकारचे बांधकाम उभारणी केलेली आहे. याशिवाय या ठिकाणी बऱ्याच उघड्या टाक्या आहेत याची नोंद घ्यावी. तसेच सदर प्रकियेमध्ये आरोग्यास काही प्रमाणात हानीकारक असणारे प्रदूषण वायू निर्माण होतात.
- पाहणीसाठी आलेल्या सर्व विद्यार्थ्या सोबत ओळखपत्र असणे बंधनकारक आहे.
- ३) सर्व विद्यार्थी व स्टाफ यांना कोविड– १९ च्या अनुषंगाने मास्क लावणे बंधनकारक असणार आहे. तसेच विना मास्क कोणालाही प्रवेश मिळणार नाही याची दक्षता घ्यावी.
- ४) दोन्ही लस घेतलेल्या विद्यार्थ्यांनाच प्रवेश देण्यात येईल. सर्टिफिकेट बंधनकारक आहे.
- अभ्यास दौरा चालू असताना विद्यार्थी यांचेमधील अंतर कमीतकमी २ फूट असणे बंधनकारक आहे.
- प्रकल्प पाहणीचे वेळी कोणत्याही प्रकारचे गैरवर्तन करू नये. प्रकल्पावरील कामकाजाचे फोटो काढणे अथवा
- चित्रिकरण करणे त्यासाठी विशेष परवानगी घेणेत यावी



विशेष सूचना :-

 आपल्या संस्थेचे प्रोफे. एस.डी.रेडेकर मोबाईल क्रमांक-१४०५८४१९७४ यांनी परवानगी मागितले असून त्यांना सदर पत्राद्वारे सूचना करण्यात येत आहे की, वरील सर्व अटी य शर्तीस मान्य असल्यास सदर प्रकल्पास भेट द्यावे व तसे मान्य असल्याचे लेखी संमती द्यावी. या संमतीनुसार से सदर प्रकल्प भेटीस रचतः जबाबदार राहणार असून त्यांनी प्रकल्पातील सर्व सुरक्षा नियमांचे पालन करणे बंधनकारक आहेत

(प्रकल्प श्रेटीदरम्यान मनुष्य हानी झाल्यास पुणे मनपा व्यवस्थापन जबाबदार राहणार नाही) २. आपणाकडून पुणे मनपाचे नुकसान झाल्यास त्याची नुकसान भरपाई आपणाकडून घेतली जाईल

- याची नोंद घ्यावी.
- ३. श्रीमती दिपा जांभूळकर (शाखा अभियंता) मोब क्रमांक –९६८९९३१०२४ आपणास या पत्राद्वारे सूचना करण्यात येत आहे की सदर परवानगी पत्र अटी व शर्तीनुसार संबंधीत संस्थाकडून हमीपत्र व परवानगी पत्र तपासणी करणे आवश्यक आहे. प्रकल्पातील पूर्ण सुरक्षा नियमांचे पालन संबंधीत भेटीमध्ये पाळले जातील याची दक्षता घ्यावी. ह्या भेटीमध्ये आवश्यक व योग्य प्रकारची माहिती संस्थाना देणेत यावी जेणेकरून मनपास हानीकारक व नुकसान होणार नाही ह्याबाबत काळजी घ्यावी.
- वरील सर्व केंद्रांचे पाहणीनंतर आपले माहितीचा उपयोग शैक्षणिक कामासाठी करावा व ही माहिती सार्वजनिक वापरासाठी करण्यात येऊ नये. तसेच आपले निष्कर्षांची एक प्रत या कार्यालयाकडे जमा करण्यात यावी, अन्यथा संस्थेस कळविण्यात येईल कळाचे

मलनिःसारण (विद्युत) विभाग पुणे महानगरपालिका

प्रतः – प्लांट मॅनेजर (विद्यार्थी व स्टाफ यांचे वॅक्सिन सर्टिफिकेट तपासून प्रवेश देण्यात याया.) श्री,धिरज झेंडे, मो.क.९६५७१४०७४० नवीन नायडू मैलापाणी शुद्धीकरण केंद्र पुणे महानगरपालिका



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Record No.: Zo	COER-ACAD/R/059	Revision: 00	Date:01	/04/2021

Site Visit Report

#### **Department: Civil Engineering**

Academic Year: 2021-22

Semester: II Date: 12/03/2022

To,

#### Head of the Department,

Subject: Submission of WWE site visit report for Sem II of Year 2021-2022

#### Respected Sir,

I am submitting the report of WWE site visit report conducted on 11/03/2022 at Naidu Plant. I request you to note the activities and observations during session conduction.

Site visit started at 12.00 PM with a welcome note given by Prof. S.D. Redekar. Total 30 students were present on site from TE Civil class.

Activity 1: Prof. S. D. Redekar introduced about site visit topic and location to all students.

Activity 2: Study of various waste water treatment units and sewage treatment has been shown during the visit by plant engineer Mr. Sachin Sir.

Activity 3: ASP treatment unit and secondary treatment has been observed on plant location by students..

Activity 4: Visit was concluded with vote of Thanks given by Neve Nandini & asked for feedback of the session.

Photographs of conducted activities are attached below:





Skimming Tank



Mechanical Screens







Group Photo

Activity : Site Visit

Link For Meet: Microsoft Teams

Attendance: 57 (TE)

Subject Teacher

CED



CED

Academic Coordinator Department of Civil Engineering Zeal College of Chomeering & Research Narhe, Pane-411041





HOD Dept. of Civil Engineering ZES's Zeal College of Em & Research, Name, r -

21



Anaokar

Head - Civil Department

Dept of Civil Engineering ZES's Zeal College of Engineering & Research Narhe, Pune-411 041

Thanking you in anticipation.

Yours,

Kindly permit the visit for the benefit of our students and faculty.

during the visit.

We will be highly obliged if you could depute any technical person along with our faculty

part of curriculum of Savitribai Phule Pune University, the students are supposed to prepare a detailed report based on the visit. Kindly provide suitable date and timings to visit the plant for 2 staffs.

We would like to request you to allow our S. E. Civil Engineering faculties for physical visit to RMC plant near Katraj to study unit operation and unit processes carrying out at plant. As a

to Savitribai Phule Pune University. Institute always aims to enable the students to be quality professionals by means of practical exposure at various workplaces and industries.

Katraj, Pune Respected Sir. Zeal College of engineering and research, Narhe is one of the renowned institutions affiliated

Pragati Enterprises

ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND

RESEARCH NARHE | PUNE -41 | INDIA

Revision: 00





Ref:

To

Date: 14/3/21

Permitted



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Record No .: ZCOER-ACAD/R/

Revision: 00

Date:01/01/2021

## Site Visit Undertaking

Department: Civil Engineering Class: SE

Semester: 1 Div: NA

Academic Year: 2021-22

Date: 47/03/2021

We UNDERSIGNED, hereby declare that study visit arranged and we all are abide to follow rules and regulation regarding the same,

It will be our responsibility to reach in time and safely and maintain all discipline on the site. Society, College, staff (teaching - non teaching) will not be responsible for any circumstances occurred due to my negligence during site visit.

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### ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH

NARHE | PUNE -41 | INDIA



Record No.: ZCOER-ACAD/R/35

Revision: 00

Date:01/01/2021 Date: 03 03 2022

Ref:

To,

The Executive Director, Katraj Dudh Utpadak Sangh Maryadit. Katraj, Pune.

Subject: Permission for site visit at Katraj Dairy (Bag House Filter).

Respected Sir,

Zeal College of engineering and research, Narhe is one of the renowned institutions affiliated to Savitribai Phule Pune University. Institute always aims to enable the students to be quality professionals by means of practical exposure at various workplaces and industries.

We would like to request you to allow our B. E. Civil Engineering students to study and visit Bag House Filter. As a part of curriculum of university, the students are supposed to prepare a

detailed report based on the visit.

Kindly provide suitable date and timings to visit the plant for a batch of (70) students and (4)faculties.

We will be highly obliged if you could depute an expert along with our faculty and students during the visit.

Kindly permit the visit for the benefit of our student and faculty.

Thanking you in anticipation.

Yours,

Anaokar Head - Civil Department

Dept of Civil Engineering ZES's Zear clotterga of Engineering & Research Narhe, Pune-411 041



Pune Zillha Saha, Dudh Utpadak Sangh Mar. Pune-Satara Road, Katraj Dairy, Pune-411046.

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We rules It wi Soci	UNDERSIGNED, hereby declare and regulation regarding the same ill be our responsibility to reach in ety, College, staff (teaching -	time and saf non teach igence durin	fely and m ing) will g site visit	aintain all discipline on the site. not be responsible for any	Size
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B111062	PATEL MAHARSH ISHWARBHAI	4-I-tab	ŕ		-
B111063	PATIL JAYESH RAVINDRA				



No. KID/PB-1/9000 /2022

Khadakwasla Irrigation Division, Pune. 24 MAR 2022 Date:-

To,

16

Head of Department, Zeal Education Societys Zeal College Of Engineering And Research, Narhe/ Pune-41 / India Department of Civil Engineering

Regarding permission for visiting Panshet Dam and Varasgaon Dam. Sub :-

Your letter dated 17-03-2022 Ref :-

With reference to above cited subject, the permission for visiting Panshet Dam and Varasgaon Dam. is granted between 28-03-2022 for 83 students & staff members for study purpose Subject to the following terms & conditions.

- It is insured by you that, no harm to the Government property on Dam site or in the 1. Government premises.
- Safety of all visitors is your responsibility. 2.
- Photography/ Video shooting in the Dam premises is strictly prohibited.
- 3. Non-violation of Government rules is to be insured by you.
- Please keep Identity Photo proff of visiting members & shall be produced if requird. 4.

Prof Here Dy. Executive Engineer Khadakwasla Irrigation Divisio Pune-11

O.C. Signed By E.E.

5.

Copy to :- Sub-divisionl Engineer, Mutha Canals Irrigation Subdivision, Pr information & necessary action please.



Record No.: ZCOER-ACAD/R/

Revision: 00

Date:01/01/2021

### Site Visit Attendance

Department: Civil Engineering Class: BE

Semester: II

	Class: De I	Div: NA		Date:	
Roll No	Name of Students	Flue	Poll No.	Name of Students	Sien
B11100	ABHYANKAR VARUNRAJ VILA	S Plyenkas	B111020	DUMANE DIKSHA ARJUN	0 Res
B1110	02 BANKAR SAKSHI SANJAY	sake la	- B111021	GADE ANIKET RAJENDRA	69.84
B11100	BHOJ SHREYASH MAHADEV		B111022	GAIKWAD PRASHANT RAMESH	Better
B11100	4 BHOSALE AISHWARYA GANESH	(DBL)	B111023	GANGODE PRASHANT PUNDLIK	18.8
B11100	5 BHOSALE JANMEJAY DATTATRAYA		B111024	GUTTE ASHWINI ASHOK	SAUNC
B111006	5 BHUJBAL ANIKET DADA	Aniky	B111025	HAJARE OMKAR BABAN	
B111007	BOBADE VYANKTESH SHARADKUMAR	approved	) B111026	ICHAKE PRATIK PRAVIN	Vehice
B111008	CHARWAD PRATIK PRAKASH	Plett.	B111027	INGOLE KETAKI KALIDAS	Letak
B111009	CHAUDHARI MAHESH NILESH		B111028	JADHAV MONIKA LAXMAN	Mort
3111010	CHAVAN NATHSINHA YUVRAJ		B111029	JADHAV SUMIT VITTHAL	ARM
8111011	CHAVAN SHARWIN KAILASH	Stanin	B111030	JADHAV TANMAY GANESH	
111012	DAHIFALE TUSHAR MARUTI	Reffer	B111031	JAVALEKAR ASHISH ANIL	Rfer)
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B111063	PATIL JAYESH RAVINDRA		

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Record No.:	ZCOER-ACAD/R/26A	Revision: <b>00</b>	Date:01/04	/2021
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## Allocation of Project Topic

Department: Civil Class: BE Semester: I/II Div: NA Academic Year: 2021- 2022 Date: 10/08/2021

Group No.	Roll. No.	Name of group members	Project Guide	Finalized Project Topic	Sponsored/ In-house (if sponsored, name of sponsor organization)
	B111060	Akshay Vijay Pandhare			
	B111059	Akshaykumar Bhaskar		Flood forecasting using Artifical	In colaboration with Water
CE2021003		Palekar	Dr. G. S. Anaokar	Neural Network and Alarm system	Resource Dept. Satara Sub
	B111001	Varunraj Vilas Abhyankar		by Internet of Things	Devision
	B111029	Sumit Jadhav			
	B111040	Prathmesh Kenjale	Duct A V	Hydrodynamic studies for proposed	In collaboration with
CE20210012	B111074	Tejas Raykar	Wakabaura	development of passenger jetti at	CWDDS Dung
	B111021	Aniket Gade	vv akchlaure	Janjira	C w r KS-r ulle



Dept of Civil Engineering ZES's Zeal College of Engineering & Research Narhe, Pune-411 041



#### ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH NARHE, PUNE -41 Department of Civil Engineering



Date: 17/08/2021

To, The Superintending Engineer, Satara Irrigation Circle, Satara.

#### Respected Sir,

Greetings from ZCOER, Pune!

Zeal College of engineering and research, Narhe is one of the renowned institutions affiliated to Savitribai Phule Pune University. Institute always aims to enable the students to be quality professionals by means of practical exposure at various workplaces and industries.

Few of our students of B E Civil Class have planned to work on project entitled "Flood forecasting using Artificial Neural Network and alarm system by Internet of Things (IoT)". For the development of soft computing model, they will need the data regarding rainfall, Dam Discharge, etc. for the period of 10 years. After completion of this project students will be able to develop ANN model for flood prediction for similar sites. The application of GSM supported IoT will be helpful to develop early warning system in flood affected areas. The detail synopsis we will submit soon as we may have data with us. Requesting to suggest suitable site as per your expertise in this field.

We assure that the data provided from your office will be purely utilized for academic purpose and will not be shared without your consent. Further, no any work will be published in any form (digital/ Hard) without your permission.

Requesting to provide the necessary data and convey any opportunity to our students where they can contribute and join your team.

Thanking You,

Sincerely Yours,

Prøf. (Dr.) G. S. Anaokar Head – Civil Engg. Dept. HOD

Dept of Civil Engineering ZES's Zeal College of Engineering & Research Narne, Pune-411 041

Rent index	अधीक्षत सातारा रि सिंचन भवन, कृष्णान दुरध्वनी :- (०२१६२)२४६०७१ (० ई मेल :- अद	क अभियंता संचन मंडळ, गगर, सातारा - ४१ २१६२)२४५१८९ ( satara@amail.com	1 <b>400</b>	<del>३</del> )२४५०७१	महाराष्ट्र गासनजलसंपदा
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कार्यकारी अभियंता, सातारा सिंचन विभाग,सातारा

विषय- धोम प्रकल्पाची माहीती देणेबाबत.

संदर्भ- HOD Dept of civil Engg Dept, Zeal College of Engineering and Research कडील दि. १७/८/२०२१

उपरोक्त संदर्भिय पत्रान्वये Flood Forecasting using artificficial neutral network and alarm system by Internet of things (IOT) करणेकरीता आवश्यक ती माहीती उपलब्ध करुन देणेबाबतचे पत्र प्राप्त झाले आहे. त्याअनुषंगाने आपले विभागाकडील धोम प्रकल्पाबाबची खालील माहीती संबंधितांना उपलब्ध करुन देणेचे निर्देश देणेत येत आहेत

- Raing fall data (last % years)
- Dam Discharge data (last १० years) हे आपले माहीतीसाठी व पुढील कार्यवाहीसाठी स्वाना.

सोबत-संदर्भिय पत्र स्थळप्रत- अ.अ यांना मान्य असे.

सातारा सिंचन मंडळ, सातारा

प्रत- HOD Dept of civil Engg Dept.Zeal College of Engineering and Research, Narhe, pune ४११ ०४१ यांना माहीतीसाठी.

## ZEAL COLLEGE OF ENGINEERING AND RESEARCH (SAVITRIBAL PHULE PUNE UNIVERSITY, PUNE)





University of Pune

### CERTIFICATE

This is to certify that the Project report entitled "Forecasting Flood Due to Unplanned Discharge of Dams in Western Maharashtra Using Artificial Neural Network and Real Time Monitoring by Internet of Things" was successfully completed by the student of eight semester Degree in Civil engineering. This work is being submitted in the partial fulfilment of the prescribed syllabus of Savitribai Phule Pune University for the academic year 2020-2021.

#### NAME OF STUDENT

I. AKSHAY VIJAY PANDHARE

- 2. AKSHAYKUMAR BHASKAR PALEKAR
- 3. SUMIT VITTHAL JADHAV
- 4. VARUNRAJ VILAS ABHYANKR

DR. S. ANAOKAR (GUIDE) Dept. of civil Engineering

Achte

DR. A.M. KATE (PRINCIPAL) Zeal College of Engineering

#### ENROLLMENT NO

B111060 B111059 B111029 B111001 DR OS ANAOKAR H.O.D CIVIL) Dept. of civil Engineering

(EXTERNAL EXAMINER)

#### **ACKNOWLEDGEMENT**

First and for most, we would like to express our sincere thanks to our Guide **Prof.G.S. Anaokar** for giving us and opportunity to work on this project.

These few lines are an effort to personify my deep sense of gratitude towards all those who helped me to complete my project successfully. We obligated this moment of satisfaction with deep sense of thankfulness to our Guide **Prof. G. S. Anaokar.** His direction and whole hearted is inspiration have been of the greatest help to us in bringing out this work in its present shape. The advice and route provided by him was very helpful in implementation of this project. We are thankful to Principal **Dr. A. M. Kate** for his valuable support.

We are also thankful to **Prof. G. S. Anaokar** (Head of the Civil Engineering Department), for giving us the opportunity to work on this project and spent lot of valuable time with us, without whose co-operation and guidance experimentation of project would not been success and also thankful to Manan Velani & Keval Dholu for Helping us in IOT Work. Furthermore, we would also like to acknowledge with much appreciation the crucial role of Mr. Sanjay Daiphode (WRD Superintending Engg) who provided us data for analysis also we would like to thank to Priti Patil Technically guided us for this project

We would also thank our Institution and our faculty members without whose cooperation and direction of experimentation of project would be impossible.

Place: Narhe, Pune

AKSHAY VIJAY PANDHARE AKSHAYKUMAR BHASKAR PALEKAR VARUNRAJ VILAS ABHYANKAR SUMIT VITTHAL JADHAV





Figure 1 Study Area



Figure 2 Study Area

😤 Create Network or Data	— 🗆	$\times$
Network Data		
Name		
network1		
Network Properties		
Network Type:	Feed-forward backprop	~
Input data: Target data: Training function: Adaption learning function: Performance function: Number of layers: Properties for: Layer 1 ~ Number of neurons: 10 Transfer Function:	Feed-forward distributed time delay Feed-forward time-delay Generalized regression Hopfield Layer Recurrent Linear layer (design) Linear layer (train) LVQ	~
Help	<ul> <li>☑ View</li> <li>☆ Restore Default</li> <li>☆ Create</li> <li>♀ Clo</li> </ul>	s

Figure 3- Network Type

📣 Neural Fitting (nftool)		RANTING TINK			×
Train Network Train the network to fit the inputs and targets.					
Train Network	Results	2	-	-	
Choose a training algorithm:		Samples	MSE	R	
Levenberg-Marquardt 🛛 🗸	Training:	426			
This algorithm typicall Levenberg-Marquardt s time. Training	Validation:	92	-		
automatically stops will Bayesian Regularization ing, as indicated by an increase in the mea Scaled Conjugate Gradient samples.	Testing:	92	-		
Train using Levenberg-Marquardt. (trainim)		Plot Fit Plot	Error Histogram		
🐚 Train		Plot Reg	ression		
<ul> <li>Training multiple times will generate different results</li> <li>due to different initial conditions and sampling.</li> </ul>	Mean Squared B between output Zero means no o Regression R Va outputs and targ relationship, 0 a	Fror is the average sg and targets. Lower v error. Ilues measure the corr jets. An R value of 1 r random relationship.	uared difference alues are better. elation between neans a close		
Train network, then click [Next].					
Reural Network Start Welcome			Back Next	🙆 Ca	ancel

Figure 4- Algorithms



Figure 5- Dam Model





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महात्सव

No. TC-2022/403

Date: 1 2 MAY 2022

#### CERTIFICATE

This is to certify that Shri Aniket Rajendra Gade, Shri Tejas Vikram Raykar and Shri Prathmesh Vijay Kenjale, B.E. (Civil) students from Department of Civil Engineering, Zeal College of Engineering and Research, Pune have satisfactorily completed their Project under the supervision and guidance of Shri B. L. Meena, Scientist 'C', CWPRS, Pune during Academic year 2021-22.

The topic of their project was "Hydrodynamics and Sedimentation Studies for a Passenger Jetty at Maharashtra Coast"

During the period of their Project Work, they were punctual, hard working and inquisitive. We wish them good luck in future.

1

(एस. जी. मंजनाथ / S. G. Manjunatha)

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#### ZEAL COLLEGE OF ENGINEERING AND RESEARCH

(SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE)





University of Pune

### CERTIFICATE

This is to certify that the Project report entitled "HYDRODYNAMIC STUDIES FOR DEVELOPMENT OF PASSENGER JETTY AT MAHARASHTRA COAST" was successfully completed by the student of eight semester Degree in Civil engineering. This work is being submitted in the partial fulfilment of the prescribed syllabus of Savitribai Phule Pune University for the academic year 2021-2022.

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Figure 1- Field Data observation location C1 and C2



Figure 2-Model Area considered for simulation