



Vidyavardhini's College of Engineering & Technology  
K.T. Marg, Vasai (W).

# CIVIL TODAY

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## EDITORIAL

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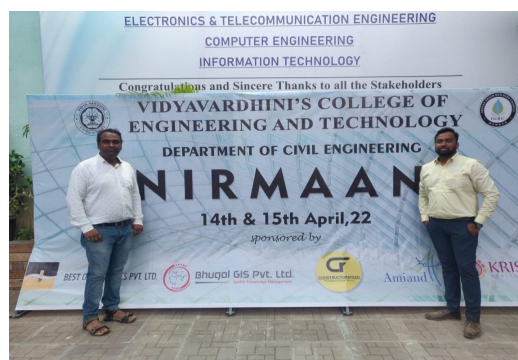
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## NIRMAAN 2K22

Vidyavardhini's College of Engineering & Technology's Civil Department organized its first time ever annual technical fest "NIRMAN" from 14th April, 2022 and 15th April, 2022 in association with Indian Green

Techniques Pvt. Ltd.; **Mr. Milind Dave**, Managing Director, AMI-AND Consultancy Pvt. Ltd.; **Mr. Debashish Mohanti**, Executive Director, Bhugol GIS Pvt. Ltd.; **Mr. Deepak Choksi**, Technical Director, Bhugol GIS Pvt. Ltd.,

sharing their thoughts on the subject. They highlighted the importance of each domain of civil engineering for an engineer to be successful in the industry. The panelists also discussed the need for engineers to be adaptable and



Building Council (IGBC).

This was a two day fest which had various events for students to participate and explore their skills as engineers. Also a panel discussion and workshop was organised for students to help students to polish their knowledge and make their CVs captivating.

On 14<sup>th</sup> April 2022, the technical fest was inaugurated with our Guests Of Honour **Mr. Satish Nayak**, Director, Best Geotech-

niques and all students. During this students were addressed by the guests for future carried by revelation of NIRMAAN'22 board.

Later a panel discussion on "Scope & Opportunities in Civil Engineering" was done in presence of all our Guest. The panel discussion started with a brief introduction of the topic, which was followed by each panelist

willing to learn new skills as the industry continues to evolve.

Along with this the wide variety of contests, from technical to non-technical, such as SimCity, the Egg Drop Challenge, House of Cards, and Panel Discussions, allow for the evaluation of participants' competency levels and the determination of their logical abilities. On 15<sup>th</sup> April 2022, A workshop was Total Station by Prof. Fauwaz

## "Scope and Opportunities in Civil Engineering" - Panel Discussion



The Department of Civil Engineering of Vidyavardhini's College of Engineering & Technology organized a Panel Discussion on "Scope and Opportunities in Civil Engineering" from 10:30 a.m. to 1:30 p.m. on 14th April, 2022. The objective of the program was to bring together the experts, practicing engineers, officials from local bodies, students, and academicians to discuss and debate on scope and opportunities in the fields of Civil Engineering.

**Event Details:** NIRMAN at VCET, VASAI, arranged by IGBC Students Chapter, Civil Department in Academic Year 2021-22.

**Date:** 14<sup>th</sup> April, 2022.

**Venue:** Gr. Floor Seminar Hall, Vidyavardhini's College of Engineering & Technology, Vasai West.

The panelists were eminent personalities from the various fields of Civil Engineering Industry, like **Mr. Satish Nayak**, Director, Best Geotechniques Pvt. Ltd.; **Mr. Milind Dave**, Managing Director, AMIAND Consultancy Pvt. Ltd.; **Mr. Debashish Mohanti**, Executive Director, Bhugol GIS Pvt. Ltd.; **Mr. Deepak Choksi**, Technical Director, Bhugol GIS Pvt. Ltd.; and **Dr. Ajay S. Radke**, Professor, Department of Civil Engineering, Vidyavardhini's College of Engineering & Technology College, who acted as a moderator in the panel discussion.

## ABOUT US:



Vidyavardhini's College of Engineering and Technology, Vasai is located on the sprawling campus of Vidyavardhini, spread over an area of 12.27 acres. It is a short, two minutes walk from Vasai Road (W) Railway Station. The college is also accessible by road from Mumbai. Vidyavardhini Society received approval from AICTE to start the new college of Engineering & Technology with effect from July, 1994. The college is affiliated to the University of Mumbai for the four year degree program leading to the degree of Bachelor of Engineering.

### VISSION:

To be a premier institution of technical education, aiming at becoming a valuable resource for industry and society.

### MISSION:

- To provide technologically inspiring environment for learning.
- To promote creativity, innovation, and professional activities.
- To inculcate ethical and moral values.
- To cater personal, professional, and societal needs through quality education.

## PROJECT SHOWCASE 2022

Vidyavardhini's College of Engineering & Technology provides a platform for aspiring technical students to compete with outstanding projects from various technical institute all over the country. The Vidyavardhini's National Level Project Showcase (VNPS) is an annual celebration of the technical accomplishments of our engineering undergraduates. Students from across all the various engineering departments, participate and present their team projects through posters and prototypes (Model Presentation). VNPS introduce a capstone by culminating academic and intellectual experience through their presentation which encourages students to think critically, solve

challenging problems and develop skills such as communication, public speaking, research and good teamwork & planning. their technical skills.

### Objectives:

To encourage the practical knowledge of the final year students.

To help the students to enhance

To provide a platform for the students across various colleges to showcase their projects.



### Role of IGBC in VNPS 22

IGBC Students Chapter aims to provide a platform for the civil engineering students to manifest their technical expertise by presenting their projects in Track 5 which includes various civil engineering domains such as Concrete & structural Engineering, Construction Management, Geotechnical Engineering, Transportation Engineering, Water Resources and Environmental Engineering. The IGBC Students Chapter along with other committees

such as IEEE, ISA, CSI, ISHRAE, IETA and VMEA of the institute organised Vidyavardhini's National Level Project Showcase (VNPS), 2021-22 to bring such creativity under one roof of VCET.

The following are the various activities performed by IGBC

STUDENTS CHAPTER during the VNPS, 2021-22..

The event included research & technical advancement projects in the Civil Engineering field. In total, there were 21 groups showcasing their talent & efforts. From these 21 groups, 3 groups were from other colleges.

Few projects grabbed a lot of attention because of their topics such as design of anaerobic digester for food waste, plas-





## INDUSTRIAL TRAINING of Students at VCET

List of companies Providing Industrial Training to our Students:

1. J P Infra
2. Dulux Professional
3. V.P Projects
4. Om Sadguru Associates
5. Shree Ashoka Buildcon
6. Imperial Lifestyle Pvt. Ltd.
7. Indus Valley Construction
8. Vsihram Traders



**Indus Valley  
Constructions  
LLP**



## STUDENT DEVELOPMENT ACTIVITIES

"Learning is a treasure that will follow its owner everywhere." Expert technical lectures at colleges and universities teach students a lot. For the benefit of the learners, experts in their particular technical fields provide their knowledge through—**Expert technical lectures.**

- Mr. Mohd. Junaid Siddiqui,
1. **Mr. Junaid Siddique** from Kalsekar Technical Campus delivered a session on "*Design of Bridge Sub-structure and Superstructure and its application*".

1. **Mr. Shashikant Mahadev Nagargoje**, Assistant Professor and HOD of Civil Dept. at Jaihind College of Engineering, Pune delivered session on "*Design of RCC Beam by different methods*".
2. **Mr. Parag Shinde** delivered a session on "*Application of Drones GIS and Lidar Techniques in Construction Projects*".

### WORKSHOP ON TOTAL STATION



## INDUSTRIAL VISITS

Civil engineer is nothing without its practical application. For the growth of the student, department have organized various industry visit for the students which gave students an outside approach to the world of knowledge. In this context

1. **Visit to under construction residential project of G+14 in Nalasopara was conducted for students of B.E Civil to**

**understand reinforcement detailing.**

2. **Visit to Mewad Commercial centre (G+4) at Bhabola Naka, Vasai (W)**



## STUDENTS ACHIEVEMENTS:

1. **Swapnil Patil, Prathamesh Gondhalekar, Faraz Ansari** secured **2nd position** in VCET's National Level Project Showcase ( VNPS' 2022) for Mini Project held on 13 April, 2022
2. **Sakshi Pagdhare** secured **2nd position** in VCET's National Level Project Showcase ( VNPS' 2022) for Major Project held on 13 April, 2022
3. **Krutarth Mistry** secured **3rd position** in VCET's National Level Project Showcase ( VNPS' 2022) for Major Project held on 13 April, 2022
4. **Vaidehi Sawant, Riya Raut, Shivam Shukla and Prathamesh Karale** secured **3rd position** in VCET's National Level Project Showcase ( VNPS' 2022) for Major Project held on 13 April, 2022
5. **Vaidehi Sawant, Riya Raut, Shivam Shukla and Prathamesh Karale** participated and submitted a research proposal titled Flood Risk assessment of Vasai Taluka using ArcGIS 10.8 in Engineering and Technology category and UG level for the Selection Round of 16th Inter Collegiate/Institute/Department Avishkar Research Convention :2021-22 for zone.
6. **Chirag Patil, Lingraj Birajdar, Sagun Parab** secured **3rd position** in VCET's National Level Project Showcase ( VNPS' 2022) for Mini Project held on 13 April, 2022
7. **Prathamesh Gondhalekar** secured **2nd position** in Egg Drop Challenge event and House of Cards event and 1st position in SIMCITY event during NIRMAAN 2022 conducted by Civil Engineering Department of our college in association with Indian Green Building Council (IGBC)
8. **Faraz Ansari** secured **2nd position** in SIMCITY event during NIRMAAN 2022 conducted by Civil Engineering Department of our college in association with Indian Green Building Council (IGBC)

## SPORTS ACHIEVEMENTS

Sr. No.	Name of Student	Sport in AVAHAN	Position
1	Yagnesh Vyas	Volleyball	Winner
2	Yagnesh Vyas	Table Tennis	Winner
3	Yagnesh Vyas	Box Cricket	Runner Up
4	Prathamesh Gondhalekar	Table Tennis ( Singles)	Runner Up
5	Prathamesh Gondhalekar	Table Tennis (Departmental)	Winner

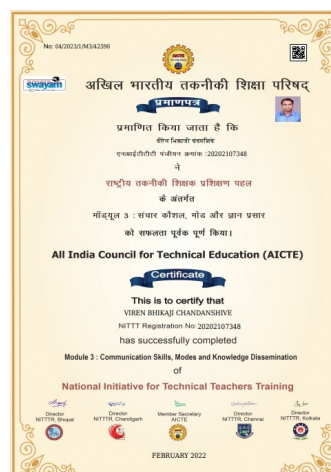
## ACHIEVEMENTS OUTSIDE COLLEGE

- ♦ Guaravi Alave secured 1st prize in Ryla (Art) in Nirmitee 2022 arranged by MIT, Pune

## Seminars/Workshops/STTPs/Orientation Programs Attended by Faculty

SR. NO	TYPE OF PROGRAM	NO. OF COURSES	NAME OF FACULTY	DURATION
01	ATAL FDP PROGRAMS	06	VIKRANT KOTHARI, PUJA KADAM, AISHWARYA ANIL	ONE WEEK
02	NITTT TEACHER TRAINING MODULES	10	MR.VIREN CHANDANSHIVE, VIKRANT KOTHARI, PUJA KADAM	2 MONTHS
03	AICTE APPROVED FDP'S	03	JAYDEEP CHOUGALE, AISHWARYA ANIL	ONE WEEK
04	ONE WEEK STTP'S	03	ARBAZ KAZI, JAYDEEP CHOUGALE	ONE WEEK
05	AICTE –NPTEL FDP	02	VIKRANT KOTHARI	12-WEEKS

## WALL OF CERTIFICATES



Road safety continues to be a major developmental issue, a public health concern and a leading cause of death and injury across the world. At least one out of 10 people killed on roads across the world is from India, according to the World Health Organization. The cost of road accidents is borne not only by the victims and their family, but by the economy as a whole in terms of untimely deaths, injuries, disabilities and loss of potential income. It is indeed a matter of great concern that despite the continuing efforts of the Government in this regard and our commitments for halving fatalities we have not been able to register significant progress on this front.

During the year 2021, a total number of 4,12,432 road accidents have been reported in the country, claiming 1,53,972 lives and causing injuries to 3,84,448 persons. Unfortunately, the worst affected age group in Road accidents is 18-45 years, which accounts for about 67 percent of total accidental deaths

## ROAD ACCIDENTS IN INDIA—2021

**Table 1.1: Total number of Accidents, Fatalities and Persons Injured during 2016 to 2021**

Year	Accidents	% change over previous period	Fatalities	% change over previous period	Persons Injured	% change over previous period
2016	4,80,652	-	1,50,785	-	4,94,624	-
2017	4,64,910	-3.28	1,47,913	-1.9	4,70,975	-4.78
2018	4,67,044	0.46	1,51,417	2.37	4,69,418	-0.33
2019	4,49,002	-3.86	1,51,113	-0.2	4,51,361	-3.85
2020	3,66,138	-18.46	1,31,714	-12.84	3,48,279	-22.84
2021	4,12,432	12.64	1,53,972	16.9	3,84,448	10.39

Data Source: States/UTs (Police Departments).

Chart 1.1: Trends in number of Accidents, Fatalities and Persons Injured: 2016 to 2021

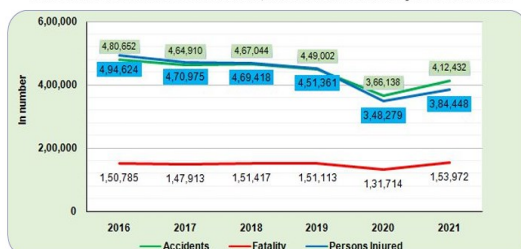


Chart 1.2: Trends in the number of Fatal Accidents: 2016-2021



Data Source: States/UTs (Police Departments).

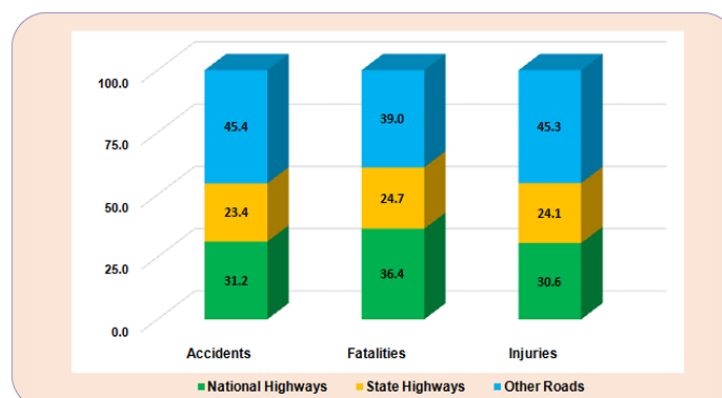
**Table 1.3: Total number of Accidents, Persons Killed and Injured by categories of Roads during 2021**

Category of Road	Accidents	Killed	Injured	Road Length as on 31.03.2019
National Highways	1,28,825	56,007	1,17,765	1,32,499
% share in total	31.2	36.4	30.6	2.1
State Highways	96,382	37,963	92,583	1,79,535
% share in total	23.4	24.7	24.1	2.8
Other roads	1,87,225	60,002	1,74,100	60,19,723
% share in total	45.4	39.0	45.3	95.1
<b>All Roads</b>	<b>4,12,432</b>	<b>1,53,972</b>	<b>3,84,448</b>	<b>63,31,757</b>

Data Source: States/UTs (Police Departments)

Road Length- Basic Road Statistics of India, 2018-19

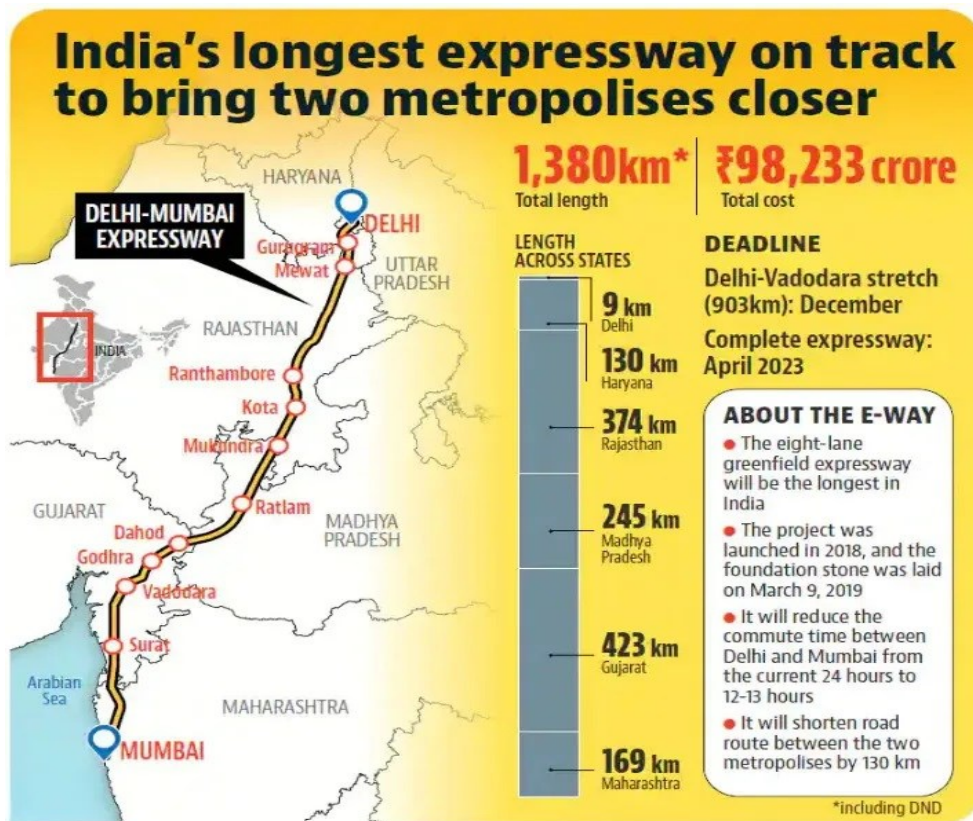
Chart 1.3: Categories of Roads Accidents, Fatalities and Injuries during 2021 (in percent)





## Delhi Mumbai Expressway Complete Details, Route Map, Progress Information.

The 8-lane, access-controlled Delhi Mumbai Expressway (DME) project, which runs 1350 kilometres and connects DND in Delhi with JNPT in Mumbai, is currently under construction. It has been designed with a 120 km/h speed limit with the option to add 12 lanes in the future.



Total Estimated Cost of Project	INR 1,00,000 crore (1 lakh crore)
Total Length of Delhi Mumbai Expressway	1,350 Kilometers
Number of Lanes	8 lanes (expandable upto 12 lanes)
Speed limit on the expressway	120 KMPH
Scheduled opening date	26 January 2023
Deadline set by NHAI for this project	December 2024
Expected Completion (Acc. to actual progress)	December 2025
Owner Agency	National Highway Authority of India (NHAI)
Delhi-Vadodara Section Project Model	Engineering, Procurement & Construction
Vadodara-Mumbai Section Project Model	Hybrid Annuity Model

## VCET ADT CELL

“Redefining Engineering Consulting Services”

### About ADT CELL

Vidyavardhini's was established as a registered society in 1970 by late Padmashri H. G. alias Bhausaheb Vartak for the noble cause of education in rural areas. Vidyavardhini's College of Engineering and Technology (VCET), Vasai is affiliated to University of Mumbai and approved by DTE and AICTE. The institute is accredited by NAAC and National Board of Accreditation (NBA)

VCET's Civil Engineering Department has an Audit, Design and Testing (ADT) Cell to provide audit, design and testing services in Civil Engineering. The department has a technical workforce of 11 Civil Engineers with atleast Masters degree in Civil Engineering.

### VISION

To be an eminent institute providing 'credible, reasonable and sustainable' solutions in civil industry

### MISSION

M1: To provide Audit services, such as Third-party audit to Government, Semi government and private organizations ; conduct structural audit and provide retrofitting or repair solutions  
M2 : To provide Design services for stable, durable elegant and cost-effective building design for structures, green building solutions and other sustainability solutions

## VCET – Audit Design & Testing (ADT) Cell

### About Us:

We have certified and accredited professionals with rich experience in Design & Consultancy Services

### Services Offered:

- ❖ Structural Audit
- ❖ Structural Design
- ❖ Material Testing
- ❖ Concrete Mix Design
- ❖ Soil Testing
- ❖ Land Surveying
- ❖ Green Building Consultancy
- ❖ Quantity Estimation & Billing
- ❖ 3D Elevation Design
- ❖ Project Management Consultancy



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