



Vidya Vikas Education Trust's

Universal College of Engineering

Gujarati Linguistic Minority Institution



The Benchmark

Issue 008: March 2019 Edition



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Activities of February 2019
(Pg.- 03-05)

Mumbai Metro One



Canvas
(Pg.- 06)

Concrete Cafe

Grouting Gym

Tension Tower

Gravel Garden

Volume Village



Mumbai Metro One (Pg.- 02)

Department Vision

- To excel in every area of Civil Engineering, inculcate research oriented study to explore hidden talent.
- Providing Opportunity to display creativity, out of the box thinking & innovativeness, aimed at providing cutting edge technology for sustainable development.

Department Mission

- Providing qualified, motivated faculties to deliver the content using updated teaching methodology, inviting industry experts from various areas to disseminate subject knowledge in Civil Engineering.
- Motivating students to undertake the Research Oriented studies, participate in competitions at all levels, grasping new techniques and methods which can be improved on further.
- Conducting and participating in seminars, workshops and training programs with a view to make the students industry ready and improve their employability factor for global career ahead.
- To create quality professionals capable of planning, designing and analytical skills for better infrastructural development in the field of Civil Engineering.

Editor's Desk

We are pleased to announce the March 2019 Edition of Benchmark. In this edition, you'll find an article on Mumbai's Metro Line 1, various activities of the Civil Department in the month of February, various activities of the College which includes, VYRO 2k19, Convocation & activities of NSS unit. This month, in Canvas, we have paid respects to one of our fellow college-mate, Jenish Kyada from SE Civil A.



Mumbai Metro One

OVERVIEW

The Mumbai Metro is a rapid transit system serving the city of Mumbai, Maharashtra, and the wider metropolitan region. The system is designed to reduce traffic congestion in the city, and supplement the overcrowded Mumbai Suburban Railway network. It is being built in three phases over a 15-year period, with overall completion expected in 2025. When completed, the core system will comprise 11 high-capacity metro railway lines, spanning a total of 235 kilometres and serviced by 200 stations.

Mumbai Metro One, or Line 1 of Mumbai Metro, or the Versova-Andheri-Ghatkopar Line is 11.40 km line, fully elevated, and consists of 12 stations from Versova to Ghatkopar. The line connects the eastern and western suburbs of Mumbai. It is operated by the Metro One Operation Pvt Ltd (MOOPL) on a 5-year contract. The first metro service was flagged off by Maharashtra Chief Minister Prithviraj Chavan, on 8 June 2014 at 10:10 am from Versova station. Within days of the metro's opening, many commuters switched from using BEST buses and autos. Authorities estimated a 25% reduction in BEST commuters along the route as a result of the metro. Ticket sales on BEST Bus Route Number 340, the most popular bus route between Andheri and Ghatkopar, dropped by ₹1.5 lakh in the first 3 days of Line 1's opening.

Financial Aspects

The original estimated cost of constructing Line 1 was ₹2,356 crore when the contract was signed in March 2007. However, delays increased the cost by 84% over six years, and the project cost was ₹4,321 crore. To offset the escalation, Metro One Operation Pvt Ltd asked for a 130-150% increase in fares. However, the MMRDA denied the request stating that the cost escalation of the project and the fare hike demand were separate issues. The Union Urban Department Ministry brought the Mumbai Metro under the Metro Railways (Construction of Works) Act of 1978 on 18 November 2013, thereby granting Metro One Operation Pvt Ltd the authority to fix fares. However a hike in the minimum and maximum fares on the line as ₹10 and ₹40 respectively was announced in early May 2014. On 9 June 2014, the MMRDA filed a case in the Bombay High Court seeking appointment of an arbitrator for the fare.

Accidents

Eight accidents occurred during the construction of Line 1. In total, 2 people were killed and 21 injured during the construction of the line. For Instance, on 5 September 2012, a slab collapsed at the under-construction Subhash Nagar metro station in Andheri, killing one construction worker and injuring 16 people. Following the incident, construction work on the metro was suspended. On 11 September 2012, Metro One Operation Pvt Ltd appointed Geneva-based SGS Consultants as independent safety consultants for the construction of Line 1. Construction resumed on 25 September 2012, under the supervision of SGS Consultants.

PHOTOS



- By Neelkumar Wala (SE Civil)



Did you know?

- Mumbai Metro One has –
- the eighth highest passenger density of any metro line in the world
 - the steepest curve (107 m) of any metro line in India

To know more about it,
Scan the QR Codes





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Seminar on “Airport Planning and Management”

Seminar on “Airport Planning and Management”, conducted by Mr. Devendra Mokal (Transportation Engineer) CIDCO, Navi Mumbai was organized by the ACES in Universal College of Engineering on 2nd February 2019. The Seminar was attended by TE students.

The Chief Guest, Mr. Devendra Mokal, commenced the session at 12:00 pm by giving us a brief introduction about Airport Planning and their management under The City & Industrial Development Corporation of Maharashtra (CIDCO) Limited followed by a detailed seminar on Case Study of Navi Mumbai Airport.

The City & Industrial Development Corporation of Maharashtra Limited is a Company formed under Companies act 1956, and is fully owned by Govt. of Maharashtra. Along with Mega city of Navi Mumbai, CIDCO has also undertaken various Projects in places like Nashik, Aurangabad, Vasai-Virar suburban, Nanded, etc.

The Seminar concentrated on information about Master Plan of Airport Planning which includes Planning and Design Standards, Air Traffic Demand, Aircrafts, International stakeholders, National Regulatory Overview, Aerodromes Reference Code, Runway Capacity and Obstacle limit surface. This was further followed by Interaction with students and session ended at 1.00pm.



Proud Winners of IIT Hyderabad & IIT Jodhpur

IIT Hyderabad:

It is a very proud moment to announce that students from TE Civil Engineering Ravi Kanojia, Darshan Mange and Nayan Chavda have bagged 1st Prize in Popsicle bridge competition at “Elan & I]vision 2019” (IIT Hyderabad) and have broke their own record. Their bridge took a load of 300+ kg and has set a massive benchmark for all the competitors for the upcoming years.



IIT Jodhpur:

It is a privilege to announce that students from TE Civil Engineering Parth Parmar, Rohit Patel and Sayani Paul have bagged 1st Prize in Popsicle bridge competition at “IGNUS 2019” (IIT JODHPUR) by taking the maximum weight which was available with the organizers, thereby setting a benchmark for all the competitors.



IN OTHER NEWS

The Department of Civil Engineering takes pride to conduct the **Survey Project** every year wherein the students of Second Year are given on-field surveying projects to control and execute in order to enhance their skills in utilizing and handling various surveying jobs as well as the equipments. This year, the students of **SE Civil A & B**, performed various survey projects over a span of **4 days** in Gholvad, Maharashtra. **Batch I (69 students)** worked from 16th to 19th Feb 2019 under guidance of Mr. Irfan Khan, Mr. Sujit Tare and Mr. Naved Qureshi; **Batch II (71 students)** worked from 19th to 22nd Feb 2019 under the guidance of Mr. Sagar Butle, Mr. Asir Khan and Mrs. Chandana Kori.

- **Day 1: Project I:** Road project using Auto level for a minimum length of 500 m including fixing of alignment, Profile levelling, cross-sectioning, at least one simple and one reverse curve, plotting of L section and Cross Section. (Two full imperial sheet including plan, L-section and any three typical Cross-sections, sample data computation for curves, cutting and filling required)
- **Day 2: Project II:** Block Contouring project using Auto level for minimum 100*80 m area and generating contours by MS Excel, etc. (minimum contour interval 0.2 meter)
- **Day 3: Project III:** Tacheometric contouring project on hilly area with at least two instrument stations about 60 m to 100 m apart and generating contours using software such as Autodesk land desktop, AutoCAD civil, etc. (minimum contour interval 1 meter)
- **Day 4: Project IV:** Traversing using a total station (minimum 10-acre area)



41st IIRS Outreach Program

Students of Department of Civil Engineering participated in 41st IIRS outreach program on "Hyperspectral Remote Sensing and its Applications" from 21st Jan, 2019 to 1st Feb, 2019. The exam was conducted at Pillai ISRO Outreach centre, Rasayani, Panvel through IIRS online portal. Nine students have successfully completed the 41st IIRS course and cleared in the exam.



Orientation / Faculty Development Programs Attended by Faculty Members

Sr. No.	Name of Faculty	Orientation Program	Date	Venue
01	Ms. Swapnali Onkar	Primavera & MSP	01/02/2019	Datta Meghe College of Engineering, Airoli

College Events

2019 Civil Events

Bridge It

Students had to showcase their technical skills by building a bridge with straws & pins that could carry maximum load with minimum deflection.

Urbania

Students had to put forth their new & innovative ideas by designing a Smart City at a conceptual level and explain to us their design.

Skyscraper

Students had to display their understanding about Centre of Gravity by designing a tower using kebab sticks & tape which would stay stable on tilting.

Rapid Survey

Students had to use Surveying instruments like Theodolite & Subtense Bar, inside a classroom, and calculate the areas of the given outline.

NSS Road Safety Week

A seminar on Road Safety Awareness was organized by NSS unit of Universal College of Engineering, Vasai on 13th Feb 2019. The Guest Speaker for the event, Mr. Sampatrao Patil along with his colleagues from Valiv Police Station, embellished the session with their precious words, giving a message to the young generation, “जिव असेल तर रस्ता दिसेल”, avoid rash driving & follow traffic rules. The session was welcomed by Ms. Swapnali Onkar from Department of Civil Engineering and she also addressed the session and the guest speakers with a vote of thanks.



NSS Blood Donation Camp

A blood donation camp was conducted on 21st Feb 2019 in our campus itself, by Sarla Blood Bank, organized by the NSS unit of Universal college of Engineering. Blood donation by students from all departments, faculties & outsiders contributed to collection of about 156 bottles. We would like to appreciate their work of awareness.



Convocation of Batch 2017-18

A convocation ceremony is an indelible & precious day in the academic life of students as after years of hard work and dedication, they get their hard earned education degrees. The convocation ceremony held on 23rd Feb 2019, had started off with a motivational and inspirational speech by our Campus Director & the Guest of Honour for the evening. The ceremony was attended by 104 students of Department of Civil Engineering. Mr. Vijay Jamariya was awarded Gold Medal & Mr. Nishant Rao was awarded Silver Medal for their exceptional academic performance and excellence.



Canvas



Jenish Kyada

(30.04.1998 – 10.02.2019)

A sincere student of SE Civil A, he was an honest & kind person with distinction in academia & active participation in all activities of the college.

May his soul Rest in Peace.

Live & Love

It is said that Life & Death are two sides of the same coin. And we all stand a 50% chance of landing with either one of them. We all are humans, we are mortals, our time is limited, and hence very precious. Having said that, I guess it is about time that we use each moment of every single day and make the most of what's left spare. Appreciate everything that you have. Take nothing for granted. Show love and respect to your family & friends. Be kind & gentle to those who suffer. Have Compassion & Empathy for all. Pray for all those who live without Love. "Carpe Diem" my friends, seize the day, because you never know when it may be your last.