Shri Shamrao Patil (Yadravkar) Educational & Charitable Trust's

SHARAD INSTITUTE OF TECHNOLOGY, COLLEGE OF
Department of Civil Engineering

The Biannual Newsletter of Civil Engineering Department

Stapathya Vaarta

AY- (2019-2020) **Issue 5 Vol 2**

Inside this issue

HOD message:

Dr.K. A.Bhagate,
`Head of Department

I am Happy to share the News bulletin "Sthapathya Vaarta ", with all stakeholders. This is upshot of all the activities conducted by the civil engineering department in the last semester. The efforts of editorial team with timely and nice presentation brought all activity under one roof. On behalf of Civil Engineering department, I am grateful to Exe.Director Shri Anil A.Bagane and Principal Dr. S.A.Khot for incessant inspiration to bring all the activities at one level.

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List of DAAB Members

Sr. No.	Name of person	Designation	Email
1	Dr. K. A. Bhagate	Head of Department and Head of DAAB	Kbhagate@gmail.com
2	Mr. S. A. Patil	Secretary, Academic Coordinator	sapatil@sitcoe.org.in
3	Prof. Dr. S. N. Tande	Other Academic Institute Faculty-Member	sntande1@rediffmail.com
4	Prof. Dr. R. V. Raikar	Other Academic Institute Faculty-Member	rvraikar@gmail.com
5	Mr. S. S. Deshpande	Industry Person-Civil Engg-Member	subhash81086@gmail.com
6	Mr. Nitin Patil	Industry Person-Civil Engg-Member	nitinpatil2910@gmail.com
7	Mr. Shrenik Patil	Parent-Member	---
8	Mr. Y. S. Patil	Programme Coordinator- Member	patil_yogesh1988@rediffmail.com
9	Mr. M. H. Mota	Senior Faculty- Member & NBA Coordinator	Mhmota77@gmail.com
10	Mr. S. S. Chougule	Senior Faculty- Member	shashiraj_chougule@yahoo.co.in
11	Mr. R. M. Garud	Senior Faculty- Member and S.E Class Teacher	ravindragarud65@gmail.com
12	Mr. R. V. Jugdar	T. E. Class Teacher Member	Rvjugdar.1983@gmail.com
13	Mr. S. S. Magdum	B. E. Class Teacher Member	shantanumagdum1989@gmail.com
14	Vivekanad Kabade	Alumni- Member	
15	Akshay Lotake	Alumni- Member	Lotakeakshay25@gmail.com
16	Mr. Rushikesh Jadhav	Current student B.E. Class-Member	Jadhavrushi191198@gmail.com
17	Mr. Shreya Gangadhar	Current student T.E. Class-Member	shreyagangdhar10008@gmail.com

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List of Mini Project SY (CIVIL) AY-2019-20

Title	**Name of Guide**
Green concrete	Prof.Y.S.Patil
Coupler design	Prof.S.S.Magdum
Brick Testing	Prof.Magdum sir
Foot Step Power generation	Prof.Bhatmare Sir
energy created by buoyancy	Prof.Bhatmare
Use Of Wastage Materials	Prof. Tikke
Building Model	Prof..R.V.Jugdar
Precast foundation	Prof.Bhatmare
Pervious Concrete	Prof.Bhatmare sir
Problem Solving in C programming	Prof.S.S.Chougule
Replacement of Sand in concrete	Prof..R.V.Jugdar
Brick Testing	Prof.Magdum
cross-section of beam	Prof.Bhatmare
Study of shear wall	Prof.Tikke

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Student Participation in other Institutes

Curricular Guidance beyond Curriculum (2019-20 –Sem-II)

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Guest Lecture by Mr. Desai Sir

Details of Industrial Visits: **AY-2019-20**

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Visit to WTP/STP Ichalkaranji

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Visit to Sinchan bhavan workshop Gad Mudshingi, Kolhapur

Visit to Indrajeet Ghorpade Contractor, Gad-Mudshingi, Kolhapur.

Faculty Development Program (FDP) - 2019-20- SEM-II

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Sr. No	Name of Seminar/ Conference/Workshop/Symposia organized by Department/ Institute	Date	Source of funding	Target Audience
01	Online FDP Program On **"ADVANCES IN CIVIL ENGINEERING EDUCATION IN POST COVID SITUATION"**	**8/6/2020 to 12/6/2020**	SITCOE, Yadrav	Faculty, Students, Researchers etc.
02	One week STTP on **"Skill Enhancement on software- STAAD Pro"**	25th to 30th November 2019	CADD center, Kolhapur	Faculty members of Civil Engineering department, SITCOE

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Photographs of Faculty Development Program

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List of STTP/Workshop Program - 2019-20			
Sr. No.	**Name of Faculty member**	**Name of STTP/Workshop/Training attended**	**Organizing agency**
1	S.J.BHATMARE	"Legal Aspects of Civil Engineering"	Dr. Daulatrao Aher College Of Engineering, Karad
2	M H Mota	FDP on Fundamentals of C Programming	SITCOE
3	M H Mota	Skill Enhancement on Software- Stadd-Pro	SITCOE
4	R M Garud	FDP on Reinforced concrete road bridges	IIT Bombay
5	R V Jugdar	Structural Audit of Building	KDK COE, Nagpur in Asso. with ICI, ACC Cement,
6	R V Jugdar	MS Project for management of construction project	AISSMS,Pune
7	R V Jugdar	Use of Construction Chemicals in Construction	K.E Societies RIT, Islampur
8	R V Jugdar	Faculty Development Program on GIT	MIT WPU,MAEEr's MIT Polytechnic Pune.
9	R V Jugdar	Valuation Webinar	Pimpri- Chinchawad college of Engineering and Research
10	R V Jugdar	Recent Development in Engineering	Dnyanshri Institute of Engineering and Technology
11	Y S Patil	FDP on Fundamentals of C Programming	SITCOE
12	Y S Patil	One Day workshop on C & C++	IIT, Bombay
13	Y S Patil	Readymixed concrete production process challeeges & Remedies	Indian Concrete Institute Banglore
14	Y S Patil	FDP on Indutry 4.0, Data Analytics, Disruptive Technologies.	Sanjay Bholare Group of Institution, Miraj
15	Tejas Patil	Opportunities & Challenges in Renewable energy	JSPM, Tathawade

16	Tejas Patil	Readymix Concrete Production Process- Challenges & Remedies	ICI
17	Tejas Patil	Metro Rail Technology- Practices & Issues	RIT, Islampur
18	Tejas Patil	Use of ICT Tools & Techniques for effective teaching & learning	AMGOI, Vathar
19	Tejas Patil	Good Construction Practices	REC, Kannauj
20	Tejas Patil	Use of Construction Chemicals in Construction Industry	RIT, Islampur
21	Tejas Patil	Legal Aspects of Civil Engineering	DACOE, Karad
22	Tejas Patil	Recent Advancement in Concrete Technology	KLE, Chikodi
23	Tejas Patil	FDP on GIT	MIT, Poly Pune
24	B B Tikke	Importance of Association with professional Societies for outcome-Based education	WCE,Sangli
25	B B Tikke	Innovations and its protection under IPR	KKWIOE,Nashik
26	B B Tikke	Advanced Trends in Engineering	NIT, Nagpur
27	B B Tikke	Engineering Geological Investigation at tunnel Site	AISSMS, Pune
30	R V Jugdar	Use of Construction Chemicals in Construction	K.E Societies RIT, Islampur

Our Proud Toppers - 2019-20 (SEM-I)

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Sr. No	Name of student	Marks (%)
TY (Civil)		
1	Mrunali Anil Dabade	9.26
2	Gangadhar Shreya Ramesh	9.03
3	Chougule Manasi Shashikant	9.01
SY(Civil)		
1	Kutwade Rutuja Shashikant	9.31
2	Patil Riya Ranjit	9.23
3	Kutwade Rutvik Shashikant	8.73

AY 2019-20-Part-II

Summary of Activities carried out by CESA

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Sr. No.	Name of Activity	Date & Venue	Target Audience	Target Audience
1	Teacher's Day	05/09/19	Civil Seminar hall	All S.E, T.E & BE Students
2	CESA Reinstallation	17/09/2019	Civil Seminar hall	All S.E, T.E & BE Students
3	Expert Talk by Er. NitinPatil	17/09/2019	Civil Seminar hall	All S.E, T.E & BE Students
4	CAD Master and Quiz under technical event	30/09/2019	SVDDC	Civil Engg. Students from different colleges

CESA Activities -2019-20

CESA Reinstallation

Expert Talk by Er. NitinPatil

CESA organizes Water testing camp

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Water Testing Camp, Kothali

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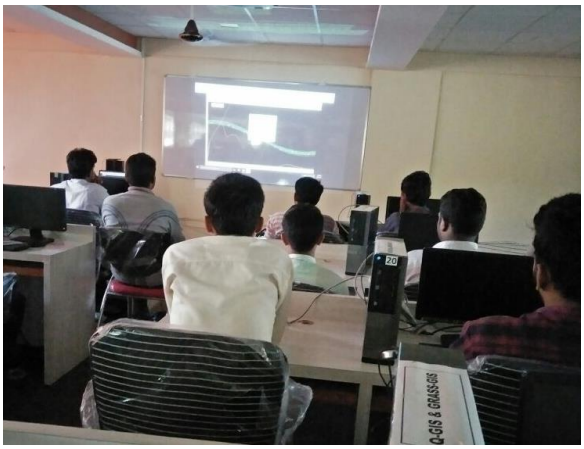
Quiz Competition



CAD Master

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Sports Day Celebration

List of Projects AY-2019-20

- **Bricks using water treatment plant sludge**
    - M H Mota
- **Paving blocks using plastic waste (particularly empty cement bags and waste carry bags)**
    - M H Mota
- **Building blocks using waste plastic and aggregate**
    - S S Chougule
- **Geopolymer concrete using GGBS**
    - S S Chougule
- **Application of coconut fiber in concrete**
    - A B Patil
- **Retrofitting materials for weak beams and columns**
    - R V Jugdar

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Faculty Publications

Sr. No.	Title of Paper	Name of Author	Title of Journal / Conference	Year of Publication
1	Improving the performance of rapid sand filter using coarser and more uniform media with poly-aluminum chloride as filter aid	M H Mota	,International Journal of Civil Engineering and Technology (IJCIET) Volume 10,Issue 02, pp.,988-998 Article ID: IJCIET_10_02_096, ISSN Print: 0976-6308 and ISSN Online: 0976-6316	February 2019
2	Wetland Vegetation in sludge treatment wetland: A review	R.M Garud	Indian journal of environmental protection, Vol:39 (1)	1 January 2019
3	The Effect of Alum as Filter Conditioner on the Performance of Conventional Rapid Sand Filter,	M H Mota	International Journal of Engineering and Advanced Technology (IJEAT), Scopus Indexed, ISSN: 2249 – 8958,	Volume-9 Issue-3, February, 2020, PP. 1916-1920

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Personality: Architect Le Corbusier

The architect's actual name is Charles-Édouard Jeanneret-Gris

Personal Information

- born 6 October at 38 rue de la Serre, La Chaux-de-Fonds, de **Charles-Edouard Jeanneret** (Le Corbusier), son of Georges Edouard Jeanneret, watch engraver and enameller, and of Marie Charlotte Amélie Jeanneret-Perret, music teacher.
- **Died on1st Sept 1965**

1.The architect's actual name is Charles-Édouard Jeanneret-Gris, but **he named himself Le Corbusier** in 1920. The name is a variation of his grandfather's name, Lecorbésier. Adopting a single name was popular among artists back in the time.

2. **Le Corbusier never had formal academic education in architecture**. He taught himself by reading books, visiting museums, and sketching buildings. He told the BBC in 1951 "I am anti-school. I am going to confess to you that I left school at 13 because schools were very mean in the past, they were no fun."

3. **Le Corbusier became nearly blind in one eye** around 1918. He would argue that his glasses should be half priced accordingly.
4. **In 1934, Philip Johnson designed his own glasses**, inspired by Le Corbusier's signature glasses, and handed the designs to be made by Cartier.

5. **Le Corbusier was invited by Fascist Italian Prime Minister Benito Mussolini** to lecture in Rome, in 1934.

6. **Le Corbusier and his cousin Pierre Jeanneret designed a car**, in 1936, and called it Voiture Minimum. They described it as a "minimalist vehicle for maximum functionality." The car was never, actually, manufactured, but the architect was persistent that it inspired the Volkswagen Beetle.

7. In 1944, Le Corbusier accepted an urban planning position offered by the French Vichy government which supported Nazi German. **He was to work on the redesign of a number of cities** including Algiers. However, his plans were rejected and he decided to withdraw from political life.

8. **Le Corbusier designed India's first planned city**, after the country's independence, in the 1950s. His design for the city was based on his concepts for the Radiant City. He, also, designed a number of administrative buildings for the Chandigarh. Although the city's design was quite influential, especially in the former Soviet Union, it was criticized for being pedestrian-unfriendly. Also, the buildings were thought to be huge and boring.

9. **Le Corbusier met with Albert Einstein at Princeton University in 1964** and discussed the "Modulor." In spite of Le Corbusier's "bad" explanation of the idea, as he would say, the scientist described it in a letter as "a scale of proportions which makes the bad difficult and the good easy."

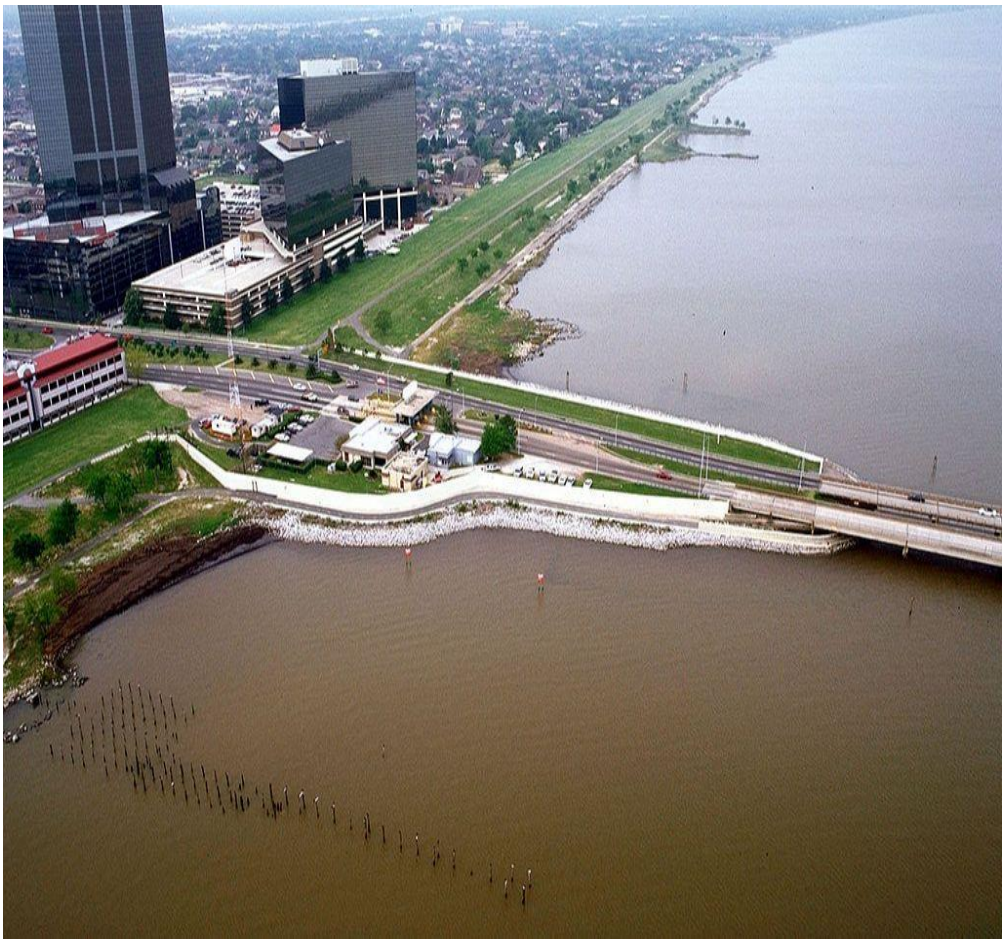
10. **Le Corbusier married fashion model Yvonne Gallis, in 1930**. Although he loved her, that didn't stop him from having affairs with French entertainer Josephine Baker and Swedish-American heiress Marguerite Tjader Harris.

11.**After Yvonne Gallis had died, Le Corbusier kept her non-cremated backbone in the back pocket of his trousers** and never took it out except when he was working; he would place it on the table right in front of him to look at.

12. Le Corbusier who was quoted saying **"How nice it would be to die swimming toward the sun,"** did, actually, die in 1965 while taking a long swim in the Mediterranean, against his doctor's instructions. His dead body washed ashore later. It is believed he died of a heart attack.

13. Surrealist painter Salvador Dali described **Le Corbusier's buildings as "the ugliest and most unacceptable buildings in the world,"** after the latter's death in 1965. Dali continued his 'mourning' by saying that Le Corbusier's death filled him with an "immense joy" and calling him a "pitiable creature working in reinforced concrete." However, that never stopped Dali from placing flowers on the late architect's grave: "on the one hand I detested him but on the other hand I am an absolute coward."

Top 10 Most Impressive Civil Engineering Projects



Lake Pontchartrain in Louisiana (U.S)

The Lake Pontchartrain Causeway in Louisiana (U.S) spans the entirety of Lake Pontchartrain and is 23.83 miles (38.35km) in length. Despite it being opened decades ago in 1959, it is still the longest continuous stretch of bridge over water in the world. The causeway is supported by 9,500 pilings and is so stable that it has suffered a minute amount of damage from major hurricanes and storms when compared to any other causeway worldwide.

Burj Khalifa

Standing at 829.8 meters, the Burj Khalifa in Dubai is the tallest building in the world. The building's incredibly tall design inspired the creation of the 'buttressed core', an engineering structural system with a hexagonal core which helps to support higher buildings than ever before. The building was named in honour of the ruler of Dubai and president of the United States Arab Emirates, and its design was inspired by the patterns and structures of Islamic architecture. The structure cost $1.5 billion to build. The building has been a major feature in popular culture; it can be seen in the 2011 film 'Mission: Impossible – Ghost Protocol' and 2016 film, 'Independence Day: Resurgence'. Burj Khalifa has broken numerous other records, including building with most floors at 211 and it has received immensely positive acclaim from citizens, engineers and architects.

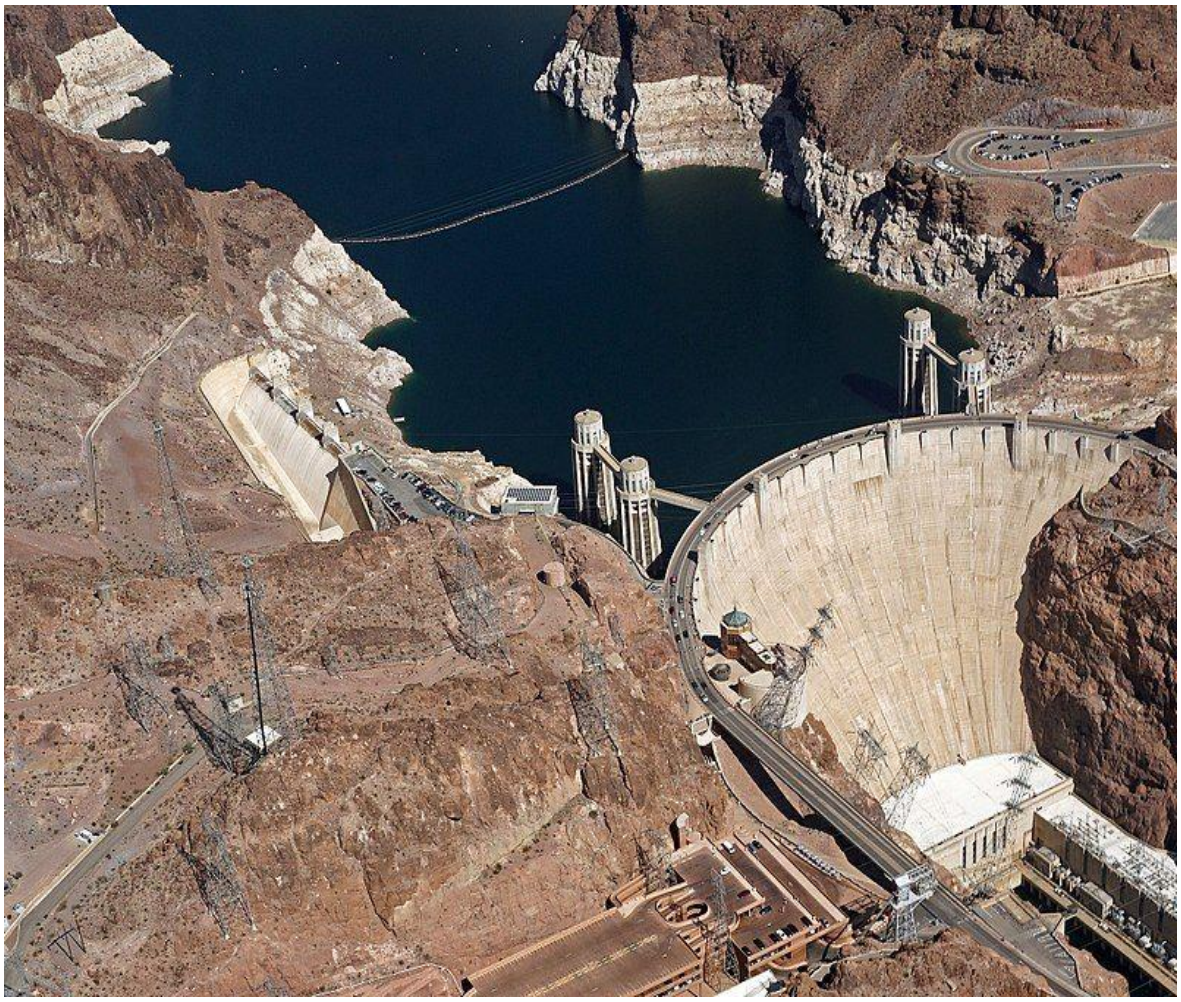
English Channel Tunnel

The English Channel Tunnel links the shore of Kent in the UK with Pas-de-Calais in France. It has the longest undersea portion of any tunnel in the world, at 23.5 miles (37.9km). At its deepest point, it is 75 metres (250ft) below the sea bed and 115m (380ft) below sea level. It is designed to carry high-speed Eurostar passenger trains, international goods trains and a shuttle for road vehicles, making it the largest transport system of its kind in the entire world. When it opened in 1994, it was the most expensive project of all time, with the final cost of an astounding £9 billion. Despite other construction projects being more expensive in recent years, it still considered to be one of the highest-value engineering feats ever.

Golden Gate Bridge

The Golden Gate Bridge is considered by many to be one of the most beautiful bridges in the world. This $27 million project is a mile-long suspension bridge that spans a strait, connecting the city of San Francisco to Marin County. It opened in 1937 and was the longest suspension bridge in the world for almost three decades. The bridge is one of the most recognised and influential symbols of the United States and has been declared a Wonder of the Modern World by the American Society of Civil Engineers.

Hoover Dam



Constructed during the Great Depression, the Hoover Dam is a concrete arch-gravity dam in the Black Canyon of the Colorado River. The construction of the Hoover Dam impounds Lake Mead, the largest reservoir in the United States. It was such a large project that several temporary towns were built during its construction to house the thousands of workers who made it. The dam is named after President Herbert Hoover, cost the equivalent of over $660 million to build and was completed in five years, two years ahead of its schedule.

Itaipu Dam

On the Parana River, bordering Brazil and Paraguay lies the Itaipu Dam. This mega-dam produces more hydroelectric energy than any other dam in the world – measuring in at an immense 103,098,366-megawatt-hour (MWh). The energy produced by the dam is split evenly between Paraguay and Brazil, although it generates so much electricity that there is surplus energy for Paraguay which is transferred back to Brazil.

Brooklyn Bridge

The Brooklyn Bridge is one of the oldest bridges in the United States and was the first steel-wire suspension bridge in the world. Completed in 1883, it connects the boroughs of Manhattan and Brooklyn by spanning the East River. The bridge was designed and completed by two generations of engineers, John August Roebling and his son Washington Roebling, who took charge of the project when his father became ill. It cost $15.5 million to build. Originally called the New York and Brooklyn Bridge, as well as the East River Bridge, its name officially changed to Brooklyn Bridge after 30 years of being called that by locals. Since its opening, it has become a historic icon of New York City and is one of the city's most visited tourist attractions. It was designated a historic landmark in 1964.

The Colosseum

The Colosseum is one of the most recognisable structures in the world and is the largest amphitheatre ever to be built. This structure is almost 2,000 years old and has a capacity of between 50,000 and 80,000 people, making it as large as many modern stadiums. This construction sits at the heart of Ancient Rome, Italy and was used for the entertainment of the Roman citizens. It has featured in countless examples of popular culture and is still studied and written about today.

Great Wall of China

With a history of more than 2,000 years, the Great Wall of China is one of the greatest wonders of the world, and one of the most visited tourist attractions globally. Whilst it is known to Western cultures as the 'Great Wall', Chinese people refer to it as Chéng which means both 'wall' and 'city'. The intrinsic connection between settlements and walls in China means that they share the same term, so the 'Great Wall' to us, is the 'Long City' and the 'Long Wall' to the people of China. The Great Wall stretches from Dandong in the east of the country to Lop Lake in the west. The entire wall with all its different branches, measures out at 13, 171 miles in length. It isn't possible to know exactly how much the wall would have cost to build, but modern calculations say it would be somewhere between $13billion and $65 billion.

Great Pyramid of Giza

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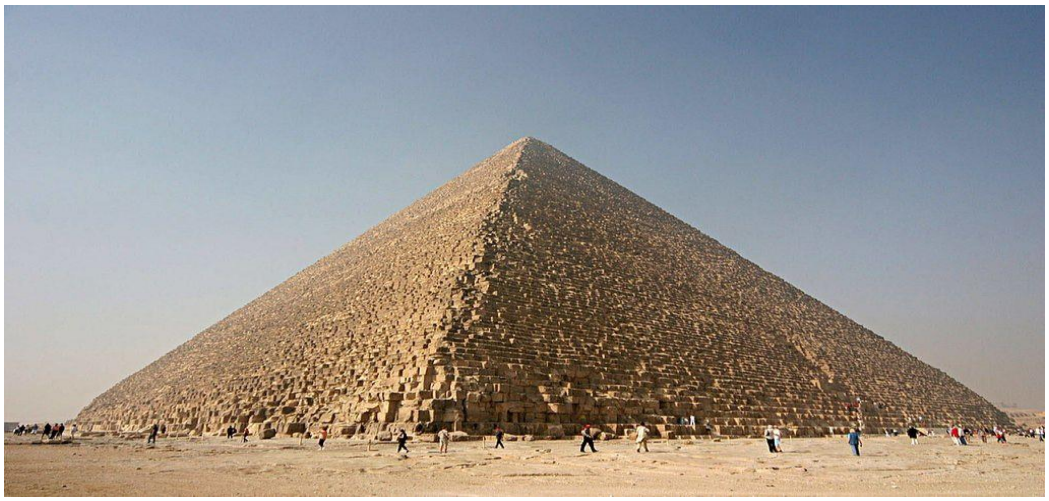

The Great Pyramid of Giza is one of the Seven Wonders of the Ancient World, and despite being the oldest, it remains largely undamaged. It is the largest of the three pyramids in the Giza pyramid complex and was the tallest construction in the world for over 3,800 years. It is believed that the pyramid was built as a tomb for the fourth Dynasty Egyptian pharaoh, Khufu and was constructed over a twenty-year period. Many experts estimate that 5.5 million tonnes of limestone, 500,000 tonnes of mortar and 8,000 tonnes of imported granite were used to make it. Experts also estimate that it would cost around $5 billion to build a replica today. Across the history of mankind, we have used our intelligence to create large, impressive structures and buildings. There have been many great civil engineering projects that have become historic landmarks and icons, but we consider these to be amongst the greatest. They showcase our ability to design and construct our own unique vision.Every engineer will have a different opinion on the most impressive creations. Honourable mentions include: the Millau Viaduct, which is the tallest cable-stayed road bridge in the world and the Shanghai Tower skyscraper in China, which is now the second-tallest building in the world. It is clear that the future of engineering is bright, and as technology advances, we will get to see even more incredible creations.

News Bulletin Committee

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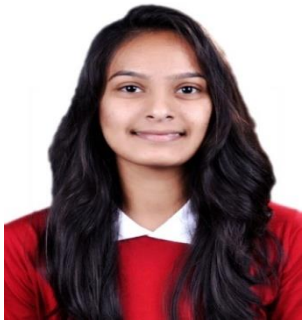
Prof. Ravindra M. Garud, Faculty Coordinator



Ms. Shreya Gangdhar

Ladies Representative

Ms.Shreya Patil

Ladies Representative

Mr. Kunal Bhosale

Student Representative

Vision, Mission and Quality Policy and PEO OF Department

The vision of the Department

To be a centre of excellence in various sub-branches of Civil Engineering like structural and environmental engineering to prepare professionally competent engineers with a lifelong learning attitude for the accomplishment of ever-growing needs of society.

The Mission of the Department

To prepare technically and professionally competent engineers by imparting quality education through effective teaching-learning methodologies and providing a stimulating environment for research and innovation

To develop professional skills and the right attitude in students that will help them to succeed and progress in their personal and professional career

To imbibe moral and ethical values in students with concern to society and the environment.

The Program Educational Objectives (PEOs)

PEO1: Demonstrate capabilities to develop an optimal solution to the real-world engineering problems by applying the theory-based practical approach of civil engineering and related engineering disciplines.

PEO2: Exhibit professional skills, ethical attitude and sensitivity towards society and environment

PEO3: Engage in life-long learning for successful adaptation to technological changes.