



Program Educational Objectives (PEOs)

- PEO1:** To impart basic and advanced knowledge of structural engineering so that graduates are able to analyze and solve the industrial problems.
- PEO2:** To provide hands on training to the graduates on latest equipment and latest software to make them suitable for industries and consultancies.
- PEO3:** To equip the graduates with basic professional skills to work as a team member or leader for the socio-economical growth of the nation.
- PEO4:** To motivate the graduates to pursue research, higher education and entrepreneurship in the structural engineering field.

Program Specific Outcomes (PSOs)

- PSO1:** Graduates will be able to provide the best possible solutions for the analysis and design problems using conventional and modern engineering tools for the sustainable development related to the structural engineering.
- PSO2:** Graduates will be able to identify societal and industrial needs through allied courses such as planning and drawing, infrastructural engineering, project management, materials, mechanics, etc.



Editorial Boards Members

Dr. A. S. Sayyad
Dr. N. S. Naik
Prof. S. M. Gunjal
Prof. Ms. B. M. Shinde
Prof. Ms. H. N. Wagh
Prof. S. S. Kolapkar
Prof. Ms. A. S. Jape
Prof. S. B. Gayake
Prof. Ms. A. D. Yawale
Prof. R. A. Sayyad
Prof. S. D. Turkane
Miss. Tejal Sonawane
Mr. Anurag Pagar

Sanjivani College of Engineering, Kopergaon (An Autonomous Institute)

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Vision of the Institute

To develop world class
professionals through quality
education.

Mission of the Institute

To create Academic Excellence in
the field of Engineering and
Management through Education,
Training and Research to improve
quality of life of people.

Structural Engineering Newsletter

Volume 1

September 2022

Vision of the Department

To achieve national and international recognition in structural engineering education.

Mission of the Department

- To nurture graduates as problem solvers who develop innovative solutions for industry related problems.
- To create graduates who possess the knowledge and skills for future challenges and lifelong learning as a structural engineer.
- To maintain healthy environment in the department which encourage our graduates and faculty to achieve their best in academics and research.

Hod's desk



Sanjivani Rural Education Society's (SRES) Sanjivani College of Engineering, Kopergaon established in the year 1983 is pioneer in providing quality education in rural part of Maharashtra. Due to high demand of structural engineering jobs in India and abroad, the institute has come up with the B. Tech. and M. Tech. degree in Structural Engineering from the academic year 2020-2021.

Besides quality teaching at B.Tech and M.Tech level the department is actively involved in basic and applied research and consultancy services. There are experienced and well qualified teaching staff members who carry out the regular academic activities as well as curricular and extracurricular activities as per the plans prepared in advance at the beginning of every semester.

The department has successfully completed first two years of B.Tech. and M.Tech. Structural Engineering and achieved many good things for the future development of the department also has got recognition as a life time member of Indian Society of Structural Engineers.



Faculty strength

1.	Dr. A. S. Sayyad (Professor & Head) Ph.D., 16 Yrs. Experience
2.	Dr. N. S. Naik (Associate Professor) Ph.D., 26 Yrs. Experience
3.	Prof. S. M. Gunjal (Asst. Prof.) M.E., 12 Yrs. Experience
4.	Dr. B. M. Shinde (Asst. Prof.) Ph.D., 12 Yrs. Experience
5.	Prof. H.N. Wagh (Asst. Prof.) M.E., 08 Yrs. Experience
6.	Prof. S. S. Kolapkar (Asst. Prof.) M.E., 07 Yrs. Experience
7.	Prof. A. S. Jape (Asst. Prof.) M.E., 07 Yrs. Experience
8.	Prof. S.B. Gayake (Asst. Prof.) M.E., 09 Yrs. Experience
9.	Prof.A.D. Yawale (Asst. Prof.) M.E., 05 Yrs. Experience
10.	Prof. R.A. Sayyad (Asst. Prof.) M.E., 02 Yrs. Experience
11.	Prof. S.D. Turkane (Asst. Prof.) M.E., 08 Yrs. Experience

Laboratories

Department has well equipped laboratories such as Engineering Mechanics Lab, Testing of Material Lab, Structural Analysis & Design Lab, Structural Audit & Health Monitoring Lab, Computers & Structures Lab, Students Innovations Lab and AutoCAD Lab etc.



Admission & Results (2021-22)

- F.Y. B.Tech. – 12/60
- F.Y. M.Tech. –12/18



Sonawane Tejal V.
S.Y. B. Tech. (Structural Engineering)
 Heartily Congratulations for securing 1st position in the Semester-I SY examination(CGPA-9.47)

List of Subject Toppers (1st Semester, S.Y. B.Tech.)

Subject code	Name of Student	Marks Obtained
ST201	Sonawane Tejal V.	87
ST202	Sable Sanket R.	95
ST203	Girme Rutuja A.	92
ST204	Waghaskar Snehal Madake Anant R.	97
ST205	Sable Sanket R.	81

Students Participation

Sr. No.	Name of Student & Class	Event Name	Prize
1	Divya Ravindra Kshirsagar (SYBTech)	Poster presentation on AIDS prevention and control	Winner
2	Divya Ravindra Kshirsagar (SYBTech)	Mehendi Contest and Diya Making	Second Position and Winner
3	Nawale Vedant Navnath	VJTI, Mumbai "STHAPATYA"	Participati on Certificate

	(SYBTech)		
4	Rau Navin Dohale (SYBTech)	KHEL-SANJIVAN' 22	Runner-up
5	Pawan Rajendra Khodke (SYBTech)	KHEL-SANJIVAN' 22	Runner-up
6	Jadhav Sanket Sadashiv (SYBTech)	Zonal Hockey Mens Matches	Runner-up
7	Rutuja A. Girme	Veer mata Jijabai Technological Institute, Mumbai "STHAPATYA"	Participati on Certificate



Sports Events

On the occasion of International Women's Day structural engineering girls student wing had organized Foot Cricket competition exclusively for girl students. Around 20 girls teams participated in the event. Cash prize, certificate and trophies were awarded to all winners and participants. Foot cricket is a fun activity. With different regulations, it is mostly played in India. Mehul Sorathiya, a local youngster, created Leg Cricket in 1999 at Saint Francis High School in Aurangabad, Maharashtra. Women in athletics challenge gender conventions and societal expectations, serve as motivating role models, and portray men and women as equals. With this objective the event was planned and showed overwhelming response from all departments of SCOE.



Industry programs

Department has organized three guest lectures by industry people in this academic year 2021-22 for F.Y. and S.Y. B.Tech. Structural Engineering Students. Experts have given lectures on Carrier Opportunities for Structural Engineers in Private and Government Sectors as well as delivered session on technical & general topics.

1. Er. Anand A. Unde

An expert talk on “Cold formed Steel Structures” by Er. A.A. Unde was arranged for SY B.Tech students on 27/11/2021. The experts experience in the said area highlighted the recent research and advancement in cold formed steel structures. Students were benefited with the talk for project and seminar work.

 <p>Sanjivani Rural Education Society's Sanjivani College of Engineering, Kopergaon An Autonomous Institute, Affiliated to SPPU, Pune ISO 9001:2015 Certified, Approved by AICTE Accredited by NAAC (A Grade) and NBA</p> 				
<p>Department of Structural Engineering Association of Structural Engineering Students (ASES) Organizes (Under My Story Board) An Expert Talk (online mode) on “Cold Formed Steel Structures” By Er. Unde Anand A. Project Manager (Engineering Design) Modcom Building Systems LLC, Dubai</p>  <p>Date - 27/11/2021 Time - 12:35 PM</p>				
Prof. S.S.Kolapkar	Prof.P.N.Shinde	Dr. A.S.Sayyad	Dr. A.G.Thakur	Hon. Shri Amit Kolhe
Event Coordinator	ASES Incharge	HOD	Director	Managing Trustee

2. Straight Up with Wonder Women

On the occasion of International Women's day a talk show with the women expert from different area was arranged exclusively for girls students. The objective of program was to have a one to one interaction with the expert. Girls students got motivated with the talk and Q&A session cleared many

doubts of students. The event was organized on 11th March 2022 in Gallery hall 025 of SCOE. Hon'ble Dr. Manali Amit Kolhe, Dr. Swati Mhaske, Mrs. Shabana Shaikh and Mrs. Neetu Shinde were the guest of event. The event proved to be motivating and learning to all participants.

 <p>Sanjivani Rural Education Society's Sanjivani College of Engineering, Kopergaon. (An Autonomous Institute Affiliated to SPPU, Pune) Department of Structural Engineering under the banner of Lilawati Award -Organizes a Talk Show on- “STRAIGHT UP WITH WONDER WOMEN”</p> 			
			
Dr. Manali Amit Kolhe Director, Sanjivani Schools	Dr. Swati Mhaske M.S., Gynecologists and Obstetrician	Mrs. Shabana Shaikh Shiksha Vistar Adhikari, Kopergaon	Mrs. Neetu Shinde CEO and Founder, Dehaaz Salon and Academy
Date: 11 th March, 2022 (1:00pm) Venue: Gallery Hall (025)			
Dr. B. M. Shinde [Event Incharge]	Prof. Ms. A. S. Jape [Event Co-Incharge]	Prof. A. D. Yawale [Event Co-Incharge]	
Dr. A. S. Sayyad [HOD]	Dr. A. G. Thakur [Director]	Hon'ble Shri. Amit N. Kolhe [Managing Trustee]	

3. Er. Bandre Anil V.

A expert lecture on topic “Skill, Scope and opportunities in Steel Structures” was conducted on 20/11/2021 for SY B.Tech students under the banner of Sanjivani I-Connect and ASES.

 <p>Sanjivani Rural Education Society's Sanjivani College of Engineering, Kopergaon An Autonomous Institute, Affiliated to SPPU, Pune ISO 9001:2015 Certified, Approved by AICTE Accredited by NAAC (A Grade) and NBA</p> 				
<p>Department of Structural Engineering Association of Structural Engineering Students (ASES) Organizes (Sanjivani I-connect) An Expert Talk (online mode) on “Skills, Scope and Opportunities in Steel Structures” By Er. Bandre Anil V. Project Manager and Executive Engineer in Thyssenkrupp Industries India Pvt. Ltd. Pimpri Pune</p>  <p>Date - 20/11/2021 Time - 12:35 PM</p>				
Prof. S.M.Gunjal	Prof.P.N.Shinde	Dr. A.S.Sayyad	Dr. A.G.Thakur	Hon. Shri Amit Kolhe
Event Coordinator	ASES Incharge	HOD	Director	Managing Trustee

Er. Bandre Anil shared his experience in the area of steel structures and also guided students about the skill requirements and scope for steel structure design engineers in coming near future. Students asked many of their doubts about the section of material for design and advantages of these structures over conventional concrete structures. Expert discussed many case studies of his experience and their uniqueness in design.

4. Dr. S.V. Patankar

A Two days technical session and hands on training was conducted on topic "Know Concrete and its Future" by Dr. S.V. Patankar, Associate Professor from department of Civil Engineering, SCOE Kopergaon for two days 23-24 November 2022 in testing of material laboratory. The objective of the workshop was to give students a live and hands on training regarding the understanding of fresh and hardened behaviour of concrete and mix design. Students got clear idea about practical aspects of concrete from mix proportioning till hardened state testing. The workshop proven to be interesting for students in project point of view.

Sanjivani Rural Education Society's
Sanjivani College of Engineering, Kopergaon.
 (An Autonomous Institute Affiliated to SPPU, Pune)
Department of Structural Engineering
 Association of Structural Engineering Students (ASES)
 -Organizes Two Days Workshop on-
"Know Concrete and its Future"
 By
Dr. S. V. Patankar
 Professor
 Sanjivani College of Engineering
 Kopergaon
 Date: 23rd and 24th November, 2021 (12:35pm to 4.35pm)
 Venue: Testing of Material Lab (TOM)

Prof. Ms. B. M. Shinde [Event Incharge]	Prof. Ms. A. S. Jape [Event Incharge]	Prof. P. N. Shinde [ASES Incharge]
Dr. A. S. Sayyad [HOD]	Dr. A. G. Thakur [Director]	Hon'ble Shri. Amit N. Kolhe [Managing Trustee]

Faculty interaction with outside world

1. Dr. A S. Sayyad

Head of department Dr. A.S. Sayyad received "Outstanding Research Work done by Teachers of Engineering Colleges" by Indian Society of technical Education (ISTE) for the year 2021.



2. Prof. S.M. Gunjal

Prof. S.M. Gunjal delivered an expert talk on topic "Experimental investigation on LC³ concrete" for the faculties of MIT Polytechnic, Dhanore under FDP program on "Research Innovations and New Techniques in Civil Engineering" on 25th February 2022. The objective of the FDP was to make teaching faculty aware about the recent area of research in concrete technology and LC³ concrete mix design. Prof. Gunjal had experimented under his PhD work and published a good number of journal papers.

Research & Development Activities

Department Faculties have published 15 research papers last academic year (AY 2021-22) in highly reputed SCI/SCOPUS indexed Journals.

1. **A.S. Sayyad**, A new higher order shear and normal deformation theory for the free vibration analysis of sandwich curved beams Composite Structures, Vol. 280, pp. 114948, 2022
2. **A.S. Sayyad**, On the deformation of laminated composite and sandwich curved beams Curved and Layered Structures, Vol.9, pp. 1-12, 2022
3. **A.S. Sayyad**, Static and free vibration analysis of doubly-curved functionally graded material shells Composite Structures, Vol. 269, pp. 114045, 2021
4. **A.S. Sayyad**, Thermoelastic bending analysis of laminated composite shells using a trigonometric shear and normal deformation theory, Journal of Thermal Stresses, 2022. DOI: <https://doi.org/10.1080/01495739.2022.2030836>
5. **A.S. Sayyad**, Design of Pile Foundation for distillation column, IOP Conference Series: Material Science and Engineering, pp. 1236, 2022, DOI: 10.1088/1757-899X/1236/1/012007
6. **A.S. Sayyad**, Flexural mode, thickness-shear mode and thickness-twist mode frequencies of laminated composite shells of double curvature, Composite Structures, Vol. 291, pp.-115577, 2022.
7. **A.S. Sayyad**, On the static deformation and frequency analysis of functionally graded porous circular beams, Forces in Mechanics, Vol. 7, pp.-100093, 2022.
8. **A.S. Sayyad**, Higher-order model for the thermal analysis of laminated composite, sandwich, and functionally graded curved beams, Journal of Thermal Stresses, Vol. 45 (5), PP.- 382-400, 2022.
9. **N.S. Naik**, Effect of thickness stretching on the natural frequencies of layered composite beams, IOP Conference Series: Material Science and Engineering, pp. 1236, 2022, DOI: 10.1088/1757-899X/1236/1/012009
10. **S.M. Gunjal**, High temperature impact on calcined clay-limestone cement concrete (LC3), Materials Today: Proceedings. (Article in press)
11. **B.M. Shinde**, A new higher order shear and normal deformation theory for FGM sandwich shells Composite Structures, Vol. 280, pp. 114865, 2022
12. **B.M. Shinde**, A New Higher-Order Shear and Normal Deformation Theory for the Free Vibration Analysis of Laminated Shells Mechanics of Advanced Composite Structures, Vol. 9(1), pp. 89-104, 2022. DOI: <https://dx.doi.org/10.22075/mac.2022.22741.1327>
13. **A.S. Jape**, Structural Behavior of beam column joint retrofitted using carbon fiber reinforced polymer, Journal of Materials and Engineering Structures, Vol. 8, pp. 47-59, 2021.
14. **A.S. Jape**, Bending of functionally graded nanobeams using hyperbolic nonlocal theory, IOP Conference Series: Material Science and Engineering, pp. 1236, 2022, DOI: 10.1088/1757-899X/1236/1/012008
15. **S.M. Gunjal**, Usage of waste marble powder for the manufacture of limestone calcinated clay cement (LCCC) Sustainable Building Materials and Construction, Lecture notes in Civil Engineering, Springer Publications(Book Chapter).

Supposing is good, but finding is better -Mark Twain

Industry-Institute Interaction

An industrial visit's intention is to provide students an understanding and supplement the theoretical knowledge gained in the classes with its application on field. With this objective department have planned and executed 05 industrial visits in nearby area showcasing planning, designing, quality testing of materials, machinery and management etc.

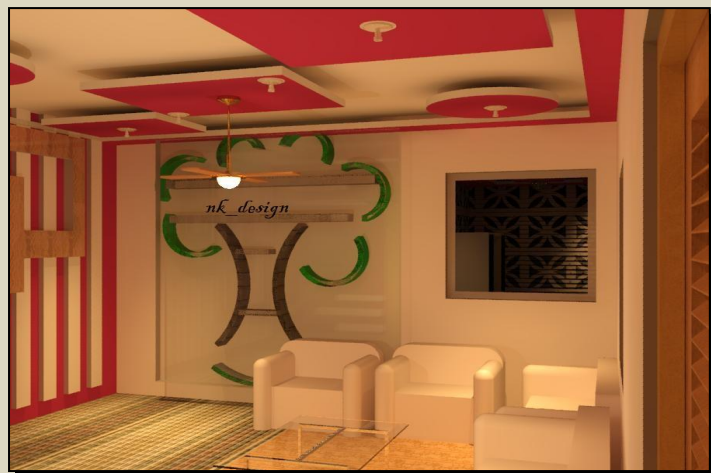


Student articles

Name : Kank
Nikita Navnath
(T.Y. BTech)



➤ Revit 3D Model for interior and exterior of building.

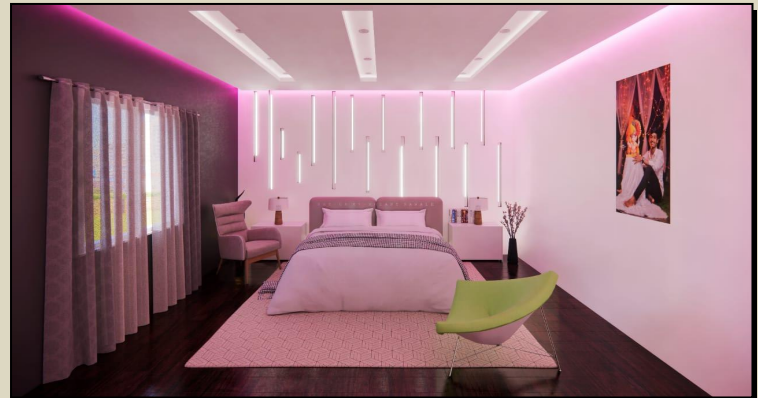


Student articles

Name : Nawale
Vedant Navnath
(T.Y. BTech)



➤ Revit 3D Model for interior and exterior of building.



➤ The tree tower project-

**Name: Omkar
Ravindra
Jagzap
(S.Y. BTech)**



Nature and architecture in search for a new balance, a new coexistence. Changing balance between nature and architecture. A tower is design in such a way that we can feel nature in our central living. It is opening up towards new qualities of living. Nature and architecture in search for a new balance, a new co-existence. A central structure is made of timber and glass. So that the light, rainwater and wind can enter. The apartment facing the main core open up with terraces, balconies and open green areas from ground to roof. It is a process that can bring a nature back in living. A new co- existence is possible possible , new qualities of life and living are introduced. Main idea of Tree Tower was for green Eco and urban



farming, energy conservation. That provides entire energetic and living needs.

➤ The Line City, Dubai

**Name: Saurabh
Appasaheb
Gaikwad
(S.Y. BTech)**



The Line City for too long., humanity has existed within dysfunction and polluted cities that ignore nature. Now revolution in civilization. is taking. Place. Imagine a traditional city and consolidating. it's foot print. Designing to protect and enhance nature. The Line. will be home to 9 million residents. and will be built with a foot print of just 34 square kilometers. And we are designing it to provide a heal their, more sustainable. quality of life. The Line city organized in 3 Dimensions The Line's infrastructure. makes it possible to travel end to end in 20 minutes.

It is zero carbon emission city. The line is 500m tall of 200m wide, 170 km long. In the city no needs tone cars. housed. within an elegant mirror glass facade and. year-round temperate micro-climate with natural ventilation. Energy & water supplies are 100%. renewable. The Line is designed. as a series of unique communities offering a wealth of amenities. Immediate alters. to the surrounding nature.



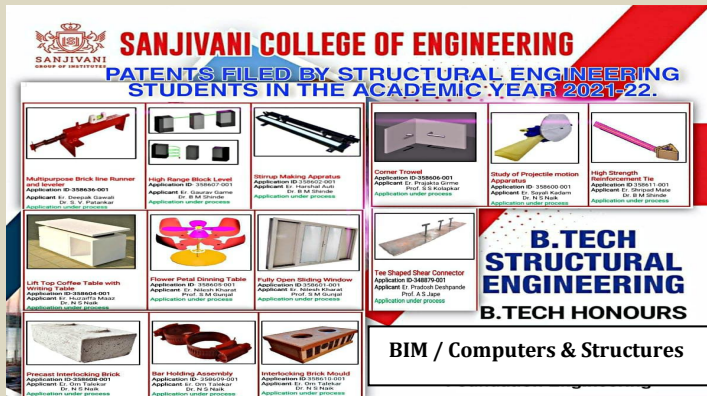
Parents Meet

Department of structural engineering has organized a parents meeting for interaction and discussion of performance of students in various academic and co-curricular activities conducted at departmental level.



Departmental staff, students and Parents had good interaction and exchange of thoughts at the time of meeting. The achievement, future goals were highlighted by the head of department. Parents interacted with the mentors regarding the performance of the ward and were satisfied with the departmental initiative and progress taken by the department for overall development of students. Program ended with tea and snacks.





Future Plans of the Department

Industry based internship: The department has planned to give industry based internship to 100 percent students so that they will be aware of advanced technologies used in the industry as well as skills required to get good jobs in industry.

Industry based projects: The Department has established MOUs and linkages with many industries to provide industry sponsored projects to all students in final year.

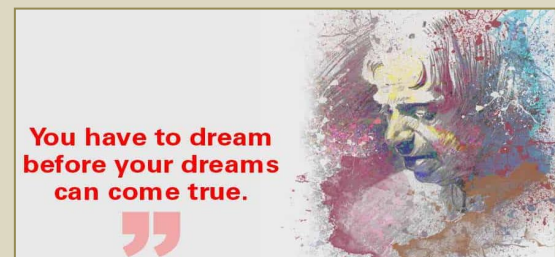
100 percent placement: The department is working on all the skillsets and technical knowledge required to make our students employable in the government sectors as well as private industries. The main focus of the department is to give campus placement to 100 percent students in well reputed companies /industries.

Software Training: The department has included advanced software based subjects in the curriculum so that students need not to take extra training of these softwares after their graduation. The department will give training to all students on AutoCAD, STADD Pro., ETABs , Revit and many other softwares used in the design of structures.

Professional Society Membership: The Department has taken lifetime membership of Indian Society of Structural Engineers (ISSE). Under this banner, all the students will get a chance to learn from eminent personalities of the structural engineering area.

Patents and Copyrights: The Department has initiated mini projects and major projects concepts where students are working on innovative ideas and filing patents or copyrights on their work. The department is providing funding to file patent or copyrights.

Competitive Services Guidance Center: Sanjivani College of Engineering has established competitive services guidance center where students are preparing for MPSC, UPSC and other competitive services examinations as well as GATE examination.



**Thanks
Regards
Dr. A. S. Sayyad (Professor & head,
Department of Structural Engineering)**