

Parshvanath Charitable Trust's

A. P. SHAH INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Govt. of Maharashtra, Affiliated to University of Mumbai

(Religious Jain Minority)



Department of Civil Engineering

Academic year 2023-2024

NIRMAAN

(निर्माण)

The best way to predict future is to build it...

(Volume – VII)



Editorial Team

Faculty



Editor

Prof. Vishal Misal

Students



Mr. Shashank Chari



Ms. Usha Parmar

Patrons



Shri Chirag A. Shah
Hon. Chairman



Mrs. Pooja C. Shah
Hon. Trustee

Our Advisors



Dr. Uttam D. Kolekar
Principal



About APSIT

A. P. Shah Institute of Technology (APSIT) has started functioning with commitment of imparting state of art technical education so as to inculcate conceptual know-how, analysing skills, decision making abilities and leadership qualities in the students. APSIT stands committed to the intellectual and moral growth of every student.

APSIT has experienced and proficient team which aspires to unlock the hidden potential in subconscious minds of students and to create competent Engineers with vision & social commitment.

Vision

APSIT aspires to be a premier institute producing globally competent engineering professionals to contribute towards socio-economic growth of India.

Mission

To provide conducive and collaborative environment to meet contemporary & future Engineering challenges by project based and value-added education with the support of trained faculty.

From Principal's Desk



It is my privilege to throw a light on our Institute, dedicated to the quality technical education with all round development of the students to be competent professional Engineers of tomorrows to serve the society. We have exemplary infrastructural facilities, well equipped laboratories, separate computer centre, the team of highly qualified faculty and the exhilarating atmosphere in the campus will surely take you to enviable heights in your capabilities and achievements.

We have research oriented, challenge seeking, well qualified and devoted faculty to train the students in quality technical education. The ultimate aim of our management and staff is to get higher percentage to our students and place them in multi-national companies. We conduct project based and value-added education with the support of trained faculty, Seminars, Workshops, STTP, National and International conferences to update the development in science technology.

I believe that the institute will continue to produce competent technocrats and managers who will make significant contribution to the corporate world and industries all over the world which will enable them to serve as global citizens.

I appreciate the editorial team for their sincere effort in bringing the Newsletter of Civil Engineering Department.

With best wishes

Dr. Uttam D. Kolekar

About the Department

The Department of Civil Engineering at A. P. Shah Institute of Technology, Thane, established in 2014, is dedicated to nurturing competent, ethical and socially responsible civil engineering professionals. The department emphasizes a balanced approach to education through theoretical knowledge, laboratory experimentation, Project-Based Learning, Value Added Programmes, computational tools and industrial exposure. With experienced faculty, modern laboratory facilities, advanced civil engineering software and an active student community through CESA and IAIC, the department provides students with opportunities to develop technical, professional and leadership skills. The department also promotes sustainability and environmental responsibility through initiatives such as the IGBC Student Chapter, ECO club and Green club. Its overall objective is to bridge the gap between academic learning and industry requirements while preparing students to contribute effectively to sustainable infrastructure development.

The Department of Civil Engineering offers B.E program in Civil Engineering with a yearly intake of 60 students. A group of qualified faculties with adequate experience is strength of department. The department has qualified faculty members occupied with educating and research, having perfection in different fields. The faculty members are youthful, dynamic and prepared to meet the scholastic needs.

Vision

Civil Engineering department strives to produce globally adaptive professionals to ensure sustainable growth of society

Mission

1. To develop state-of-the-art facilities and advanced computational resources to integrate education and research.
2. To create proficient and ethically strong technocrats by exposing them to rigorous appraisals to make them realise, define and select their key competencies
3. To bridge the academic and industrial gap by imparting training through sound and conceptual foundation and ample field exposure.



From the HOD's desk



It gives me immense pleasure to acknowledge that, during last year, various curricular and co-curricular activities were conducted successfully by the department. Through seminars, workshops, expert lectures and industrial visits, the students were equipped with technical knowledge, skills and creativity to excel in their engineering profession. The department is looking forward to a great year ahead, with plenty of planned activities lined up. Our students made us proud by excelling in academic and extra-curricular activities.

I congratulate and appreciate the efforts of Students and Faculty who have contributed to the continuous improvement of the department. I also appreciate and thank the editorial team for their sincere efforts in bringing this edition of the Newsletter.

I wish all our students and faculty attain great success in their future endeavours.

With best wishes

Prof. Upendra Mate



We're proud
of you

Congratulations

Student Achievements

Toppers list

Congratulations to our students on their excellent exam results. We wish them to keep the same courage and confidence to face the challenges of life. May God bless them with success and abundant happiness.

A.Y. 2023-24

Semester	Name of Student	CGPA
SE	Shinde Siddharth	7.8
TE	Khatri Mohammed Zaid Sohel	8.43
BE	Kharat Sarvesh	9.4

Technical Achievement

- 04 Students presented paper in Conference.
- 12 Students have participated in State level and National level competition.
- 1 student have successfully completed NPTEL course out of 1 had bagged Elite type.
- 6 faculty have successfully completed NPTEL course each certificate has Elite type.

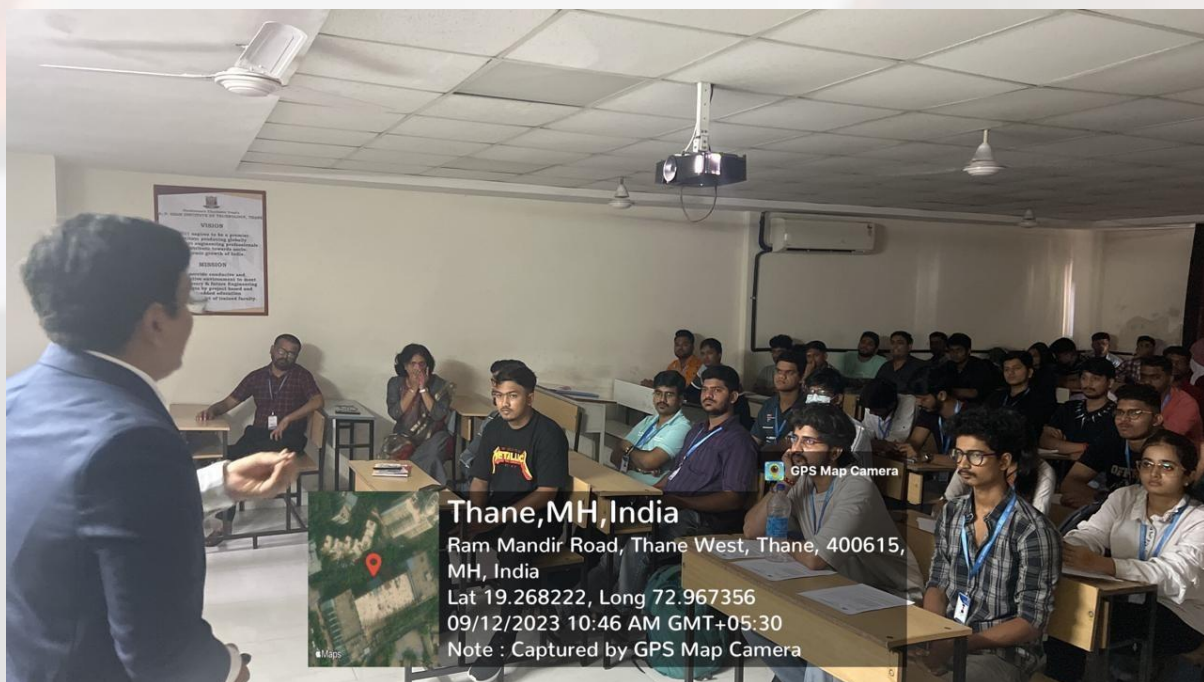
Departmental Activities

Interaction with Alumni

Key Highlighted

- Navigating Civil Engineering Careers,
- Certifications and Job Opportunities
- Name of Alumni: Er. Utkarsh Shukla 2018-19.

A few Glimpses of the event



GREENTECH REVOLUTION THROUGH ELECTRONIC WASTE RECYCLING INITIATIVE

VENUE: - A.P. Shah Institute of Technology

EXPERT LECTURE DATE: - 12-09-2023

AUDIENCE: - SE, TE and BE Civil Engineering students and Faculty

EXPERT SPEAKER: - Ms. Rashmi Joshi, Environment Consultant

ORGANISED BY: - Civil Engineering Department

FACULTY CO-ORDINATOR: - Prof. Mrunal Joshi

TOTAL STUDENTS ATTENDED: - 108

Now a day's waste management is big issue of concern. Due to rise in waste generation and less availability of space for waste treatment, processing and disposal, most of the waste is dumped in dumping grounds. But special care is required to be taken in case of assorted type of solid wastes such as Electronic or E wastes. This expert lecture was arranged to create awareness among students about E waste, current scenario of E waste management, wrong practices followed and ways for proper E waste management.

Ms. Rashmi Joshi has started her lecture with highlighting the current scenario in India about E waste generation. She had discussed about various sources of E wastes, composition of E wastes. She added the knowledge of students by explaining the various hazards of E wastes to the human beings as well as the environment. She focused on the measures that can be taken for proper E waste management. The speaker also provided information about E waste management and scientific recycling of e waste after proper segregation. She had explained the flowchart for the metal management from E waste and how his work is being carried out at scientific recycling facility.

The topic was covered in a systematic manner. The lecture ended with question-and-answer session and vote of thanks.



A few Glimpses of the lecture

Eco Club Inauguration

VENUE: - Seminar Hall 112

ACTIVITY DATE: - 19-03-2024

AUDIENCE: - Students and Faculty members

CHIEF GUEST: - Mrs. Krupa Patil, Trustee NGO –Green Works Trust

ORGANISED BY: - Civil Engineering Department

FACULTY CO-ORDINATOR: - Dr. Mrunal Joshi

An Eco Club, short for Ecology Club, is a student-led or community-based club that focuses on promoting environmental awareness, conservation, and sustainable practices. These clubs typically engage in various activities and initiatives aimed at protecting the environment, educating members and the community about environmental issues, and implementing eco-friendly practices. Memorandum of Understanding (MoU) is signed between NGO - Green Works Trust, Mumbai & A.P. Shah Institute of Technology, Thane. Eco Club is formed under this MoU.

The Objectives of the MoU are spreading awareness among students and teachers regarding nature and environment, improving outdoor skills through various activities to promote teamwork, collaboration and interpersonal skills through internships wherever possible, Inculcating a sense of responsibility towards the environment and developing a strong ethical foundation to guide actions related to the environment, encouraging individuals to actively contribute to the conservation of natural resources, promoting sustainable practices and lifestyles that minimise negative impacts on the environment. Developing skills in scientific observation and fostering a scientific understanding of natural processes. To satisfy these objectives Eco Club is formed in Civil Engineering Department.

The main purpose of Eco club is to raise awareness about environmental issues and inspire action to address them. This includes promoting conservation efforts, reducing waste, and advocating for sustainable practices. Hence, eco club would organize a wide range of activities such as tree planting, beach clean-ups, recycling drives, environmental workshops, guest speaker events, and educational campaigns. These activities aim to engage members and the broader community in environmental stewardship. Eco Clubs play a crucial role in educating members and the community about environmental issues, such as climate change, pollution, deforestation, and habitat loss. They provide opportunities for learning about the importance of biodiversity, ecosystems, and sustainable living practices.

The event was graced by the presence of Guest Mrs. Krupa Patil, Er. Ulhas Paranjpe sir, Principal Dr. Uttam Kolekar, Vice Principal Atul Deshpande sir, Incharge HoD Civil Engineering Dr.Pooja Rao, Civil Engineering Department faculties and students. Dr. Mrunal Joshi coordinated the event with the help of IGBC and CESA students.

A few Glimpses of the event





PO and PSO mapping -

PO's mapped – PO2, PO7, PO 9, PO12

PSO mapped – PSO2

RAIN WATER HARVESTING AND CONSERVATION WITH FERROCEMENT TECHNOLOGY

VENUE: - Seminar Hall 112

ACTIVITY DATE: - 19-03-2024 and 20 -03-2024

AUDIENCE: - Students and Faculty members

CHIEF GUEST: - Er. Ulhas Paranjpe, Trustee-Jalvardhini Pratishthan, Managing Committee Member of Ferrocement Society

ORGANISED BY: - Civil Engineering Department

FACULTY CO-ORDINATOR: - Dr. Mrunal Joshi

TOTAL STUDENTS ATTENDED: - 40 +

Water scarcity is a pressing global issue, affecting millions of people worldwide. Rapid population growth and climate change exacerbate water scarcity in many regions. Efforts to mitigate water scarcity include water conservation measures, efficient water management practices, and investment in water infrastructure. Ferrocement tanks offer a sustainable solution for rainwater harvesting, providing reliable storage for collected rainwater. These tanks constructed with chicken mesh, weld mesh, natural fibres, coconut coir etc. Ferrocement tanks built in different shapes and sizes, maximizing water storage capacity while minimizing space requirements. In areas prone to water scarcity, ferrocement tanks play a vital role in ensuring access to clean water for drinking, agriculture, and other purposes.

The rapid construction process of ferrocement tanks allows for quick deployment, addressing urgent water storage needs in emergencies. Ferrocement tanks integrated into community water supply systems, providing a reliable source of water for rural and urban populations alike. To have deep insight about ferrocement technology, two day's workshop was arranged by APSIT, Civil Department on 19 and 20th March 2024. The workshop has covered a theory session and hands on training for construction of two ferrocement tanks of diameter 2 ft. and height 2.5 ft.

The main objectives of workshop are as follows -

--To increase knowledge and awareness about the importance of rainwater harvesting and conservation practices, as well as the benefits of utilizing ferrocement technology in such initiatives.

To provide participants with hands-on technical training on the design, construction, and maintenance of ferrocement structures for rainwater harvesting,

To enhance the skills of participants in the application of ferrocement technology, including techniques for mixing, applying, and curing ferrocement materials

The event was graced by the presence of Guest Er. Ulhas Paranjpe sir, Principal Dr. Uttam Kolekar, Vice Principal Atul Deshpande sir, HoD Civil Engineering Prof. Upendra Mate, Civil Engineering Department faculties and students. Dr. Mrunal Joshi coordinated the event with the help of IGBC and CESA students.

This workshop was a great experience for SE, TE and BE students. The students had onsite construction experience with learning.

A few Glimpse of the event



Ferrocement Technology Theory Lecture delivered by Guest Er. Ulhas Paranjpe sir



Students Binding the Weld and Chicken Mesh for Ferrocement Tank Skeleton



Team with Ferrocement Tank Skeleton



Students Preparing Mortar



Mortar Filling on Skeleton



Ready Ferrocement Tanks



Tank Curing in progress



Principal and Vice principal sir, Guest, Faculties and students

PO and PSO mapping -

POs mapped – PO2, PO7, PO 9, PO12

PSO mapped – PSO2

cracks were carried out to assess severity and possible causes.

Site Visit

Subject: - Solid and Hazardous Waste Management (SEM VII)

Site Visit Date: - 09-10-2023

Site: - Project Revitalization Samrath Bharat Vyaspeeth TMC Sewage Treatment Plant

Site Address: - Project Revitalization, Samarth Bharat Vyaspeeth, TMC Sewage Treatment Plant, Near Nytro Gym., Kanhaiya Nagar, Kopri, Thane East, 400603

Total Students attended – 80



As per the curriculum of University of Mumbai, students of final Year Civil Engineering have Elective IV subject – CEDLO7022 Solid and Hazardous Waste Management. A site visit was arranged to Project Revitalization Samrath Bharat Vyaspeeth, Kopri, Thane East to see and study solid waste management plant.

Samarth Bharat Vyaspeeth (SBV), a non-profit organization, and the Thane Municipal Corporation launched Project Revitalization in 2017 to send lesser waste to landfills and put it to some good use. The aim was to give the women rag pickers in the area a stable source of income and to collect dry waste from as many households as possible. Till date, they have employed nearly 24 women rag pickers and saved 30 tonnes of waste from ending up at landfills every day. SAMRATH BHARAT VYASPEETH NGO developed this plant as integrated waste management centre. The vision behind this is the business sector development and helping the nature and environment to fight against the severe damage due to waste dumping.

During the site visit students studied how actually solid waste management is done on site. Waste management starts with segregation activity. At SBV's waste management centre, different types of waste such as dry waste, floral waste and garden waste are segregated at a single location.

Dry Waste collected from Thane region societies segregated manually by employed rag pickers. Segregated plastic is sent for recycling. Segregated Papers and cardboards are compressed by compacting equipment in bundles and transported for recycling. The centre was able to expand its services, and now manages several types of waste segregation and recycling

Program Educational Objectives (PEO)

PEO 1 PREPARATION: Graduates shall be engaged in successful professional practice and/or pursue higher studies.

PEO2 CORE COMPETENCE: Graduates shall demonstrate technical competency and leadership to succeed in the career path ahead.

PEO 3 BREADTH: Graduates shall advance in their professional careers by demonstrating skills and expertise in different domains of Civil Engineering.

PEO 4 PROFESSIONALISM: Graduate shall demonstrate commitment towards professional ethics, best management practices and sustainable development of the society.

PEO 5 LIFELONG LEARNING: Graduate shall pursue lifelong learning in contributing innovative solutions using a research attitude and problem-solving skills.



Department of Civil Engineering.

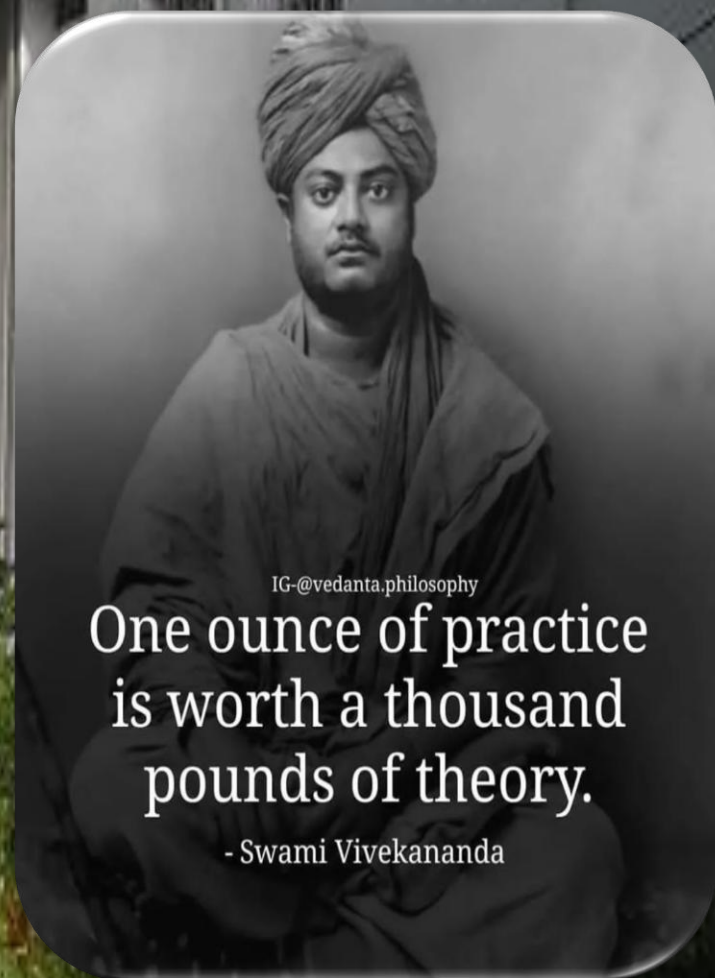
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**One ounce of practice
is worth a thousand
pounds of theory.**

- Swami Vivekananda