



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 2017-2018

nirbhaan

(निर्माण)

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

(Volume – I, Issue – I)

CONSTRUCTION-UNDER

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From Editor's Desk

We are glad that the First issue of Newsletter from Civil Engineering Department is being published. It gives us immense pleasure in writing this message and appreciating the joint efforts of all the faculty, departments and students, who made this happen.

This issue of Newsletter is a collection of overview of Civil Engineering Department, happenings in the odd semester of academic year 2017-18, faculty training, students' achievements, activities conducted, seminars, site visits, expert lectures and student development program. I extend my warmest thanks to the authors for their interest, enthusiasm and timely submission of write-up and participation in creation of this newsletter.

Patrons



Shri Chirag A. Shah

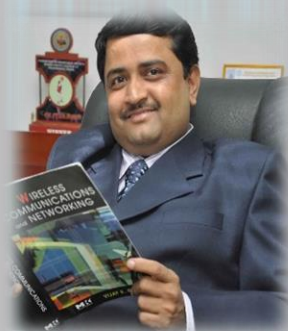
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About APSIT

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, analyzing 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

Civil engineers apply engineering principles to balance the society with technical and economic feasibility. In view of this the department emphasizes on sustainability within the built environment through green engineering in our teaching and research activities. As we enter the 21st century we find ourselves in an increasingly digital world. With the advent of science and technology reaching meteoric heights, the importance of Civil Engineering has only increased. Now, more than ever, Civil Engineers are required to build the various giant infrastructure projects, which forms the basis for growth of world. Students studying under us are assured of the highest quality education buoyed by our state of the art laboratories and extensive field trips to industries in order to familiarize them with the practical aspects of their trade.

The Department of Civil Engineering was established in 2015-16 offering B.E program in Civil Engineering with a yearly intake of 60 students, which is now increased to 120 from the year 2017-18. A group of qualified faculty 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.



Civil Engineering Department.

From the HOD's desk



The prime motto of the Department of Civil Engineering at APSIT, Thane is to impart quality and relevant education and help create fundamentally sound engineers for tomorrow. The Department is equipped with a team of well qualified faculties with rich industry experience. The Pedagogy is well designed and lays emphasis on proper understanding of the basics of the subjects coupled with insights on practical applicability through class room sessions, laboratory experiments, field study, expert lectures and latest online tools.

The department is adorned with its own departmental library with ample reference books to reinforce the learnings and comprehension of staff and students. The state-of-the-art laboratories help impart necessary practical and analytical skills in order to bolster the transformation of our students into reckoning engineers of tomorrow. Besides the academic know-how we also ready our students for the challenges in life through relevant Industry visits, Project Based Learnings, Value Added Courses in Engineering software like Auto CAD, STAAD PRO, ETABS and Revit's and encouraging their participation in workshops, seminars and inter-college competitions.

With a focus on a holistic development of students the department also organizes courses and seminars on soft skills like verbal and written communication, presentation and interpersonal skills. We, through the various team assignments, projects and submissions endeavour to nurture the right ethos like integrity, team-work, discipline and a drive for results in our students. To bridge any possible gap in the above stated motto, we have formed a student council "CESA – Civil Engineering Students Association, which is constituted and lead by a team of representatives from the existing student fraternity.

It gives me immense pleasure to be leading this passionate coaching team at the Department of Civil Engineering and we are confident that our commitment to the cause will continue to lead the way in nurturing and moulding young talent into successful and globally adaptive professionals of tomorrow.

With best wishes

Prof. P. S. Rao

Faculty Training & Development

Sr. No.	Name of the faculty	FDP / STTP attended	Venue & Date	Duration
1.	Prof. Mrunal Joshi	Advances in Geotechnical Engineering (AGE 2017)	S V National Institute of Technology, Surat 4/11/2017	1 Day
2.	Prof. Pooja Rao	Advances in Geotechnical Engineering (AGE-2017)	S V National Institute of Technology, Surat 4/11/2017	1 Day
3.	Prof. Upendra Mate	Faculty Intelligence Learning Module	SCOE, Kharghar, 4/12/2017 – 8/12/2017	5 Days
		Workshop on “Outcome based Education & Accreditation Process”	SCOE, Kharghar, 20/12/2017	3 Days
4.	Prof. Raksha Khandare	Recent Innovations in Civil Engineering (Rice 2017)	Datta Meghe College of Engineering, Airoli. 18 - 23/12/2017	1 week
5.	Prof. Preeti Kalburgi	Recent Innovations in Civil Engineering (Rice 2017)	Datta Meghe College of Engineering, Airoli. 18 – 23/12/2017	1 week



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.

Month	Year	Semester	Name of student	CGPA
May	2017	IV	1.Padhye Suyash	9.31
			2.Salunke Roshan	9.08
			3. Chand Manoj	8.87
May	2017	VI	1. Ahire Urjala Popat	8.86
			2.Chippa Aditya	8.86
			3. Katare Ankita	8.71

Technical Achievements

Sr. No	Name of Student and Class	Name of Event	Organised by	Date	Rank
1.	Ashish Shewale	Technozon 2k17	NHITM, Thane	29-09-2017	1st
2.	Rohit Jadhav	State Level Poster Presentation	VJTI, Mumbai	15-09-2017	1st
3.	Abhijit Musale	State Level Poster Presentation	VJTI, Mumbai	15-09-2017	1st
4.	Viren Jain	State Level Poster Presentation	VJTI, Mumbai	15-09-2017	1st
5.	Sujay Yeole	State Level Poster Presentation	VJTI, Mumbai	15-09-2017	1st
6.	Ashish Shewale Mrunal Repale Sachin Pednekar	Skyscraper Event	NHITM, Thane	29/9/2017	2nd

Sports Achievement

Sr. No.	Event	Name of Student	Date	Rank
1.	District Volleyball Match	Govindraj Manohar Patil	18/10/2017	Winner



Students' Achievements.

Departmental Activities

Site visit

Site visits have their own importance in a career of a student who is pursuing a professional degree. It is considered as a part of college curriculum. The objective of an industrial visit is to provide us an insight regarding internal working of companies. We understand that theoretical knowledge is not enough for a successful professional career. With an aim to go beyond academics, industrial visit provides students a practical perspective of the work place. It provided us with an opportunity to learn practically through interaction, working methods and employment practices. Hence, following are the highlights of Industrial visits and Survey camp conducted in the academic year.

1) Sewage Treatment Plant, Airoli

As per the curriculum of University of Mumbai, students of final Year Civil Engineering having Environmental Engineering II subject required to visit a site as a part of their Termwork. A site visit was arranged to Sewage Treatment Plant, sector 15, Airoli, Navi Mumbai, on 8/9/2017.

About the Plant:

The present sewage treatment plant is designed for 800000 inhabitants. The waste water is treated before it is let into the sea. This sewage treatment plant has been designed for Airoli Node in Navi Mumbai with latest C-Tech (Advanced cyclic Activated Sludge Technology) process for an average 80 MLD capacity. In this site visit, students have got the knowledge regarding –

- How the treatment of waste water is done in actual practice?
- What are the various essential units of STP?
- Technical details of each unit with their working
- What are the various laboratory tests done on waste water?
- How safe disposal of waste water can be done?
- Difference between the characteristics of raw and treated waste water
- Effectiveness of treatment plant for the discharge of waste water in any river body or creek.



Semester VII, Sewage Treatment Plant, Airoli.

2) Solid Waste Management Site Visit, Kalwa

As per the curriculum of University of Mumbai, students of final Year Civil Engineering having Elective I-Solid Waste Management subject required to visit a site as a part of their Termwork. A site visit was arranged on 22-09-2017 at Enviro vigils Ankur Theme Park, Kalwa, TMCs Chhatrapati Shivaji Maharaj Hospital Campus Behind Boiler House, Thane Belapur Road.

About the Plant:

In the 21st century where global warming and climate change is a major issue, scientists, world leaders and nations are finding solutions to solve climate change issues. Paryavaran Dakshata Mandal (PDM), an NGO of environment education, research & awareness creation in Maharashtra & Goa, works at grassroot level. It serves the same cause, considering every minute aspect to protect environment, from the past sixteen years. PDM's mission has always been Environmental education, research & awareness creation among the masses for clean, healthy and hygienic environments and has been striving to do so since its inception in 1999. Vision: To build a strong and self-sustained organisation working for the cause of Environment. Mission: To empower the youth to accept challenges of changing world with a tune of sustainable development.

Ankur Theme Park Includes 12 Projects Like, Shed House, Organic Farming, Terrace Garden, Butterfly Garden, Vermicompost, Biocomposting, Rain Water Harvesting, Biogas, Aquaculture, Magic Bucket, Solar Cooker, Medicinal Plant etc.

In this site visit, students got the knowledge regarding

- How the treatment of biomedical waste is done in actual practice?
- How safe disposal of bio-medical waste can be done?
- Learn about organic farming, terrace garden, rain water harvesting, bio gas plant, magic bucket to treat solid waste generated in houses house
- Difference between the characteristics of raw and treated waste water which help them to understand the effectiveness of treatment plant for the discharge of waste water in any river body or creek.



Semester VII, Solid Waste Management Site Visit, Kalwa.

Expert Lecture

Lectures delivered by expert and talented speakers can be highly stimulating and beneficial to students pursuing technical courses. They expose students to real-world life experiences from the position of someone who has been there. Students get to see the insight and perspective of the guest speaker's particular field.

1) "Introduction to Revit Structures" on July 25, 2017

A. P. Shah Institute of Engineering, organized Expert Lecture on "Introduction to Revit Structures" on July 25, 2017 for Third Year Students pursuing Civil Engineering, in association with CESA (Civil Engineering Student's Association). Industry Expert Speaker Mr. Sachin, were invited to deliver it.

Revit Structure Introduction explores BIM Concepts and leads the user through the basics of designing structural elements within the context of an integrated Building Information Model (BIM). This course covers the fundamental capabilities of Revit Structure for development of plans, elevations, sections, details, schedules and 3D views. Users will learn typical building elements while practicing key editing and manipulating tools on various structural systems. The session started with a warm welcome of the guest by Prof. Raksha Khandare.

The speaker along with his team members started the session with a brief introduction to "Rivet Structure Software". The Expert Mr. Sachin from MILESTONE SOLUTIONS has a vast experience in developing models in RIVET. Along with the introduction to the software, its importance and application in the field of Civil Engineering was explained to students. A demonstration on how to develop a model and insert various elements in the structure was shown by the speaker to the students. Arrangements of walls, doors, windows were included in the demonstration. A model of G+10 was developed with the positioning of various elements.

Learning Objectives Achieved:

- To understand BIM and the fundamentals of using Revit structure in conjunction with an architectural model.



Semester V, Lecture by Mr. Sachin on 'Introduction to Revit Structures'.

Seminars

The students have to always keep their eyes on what new things are arriving day by day. This is where the seminars are of great importance. Seminars are capable of keeping the students updated with the technologies. Seminars provide latest information about the things which are happening in science and technology.

1) “Unconventional Civil Engineering”

The Department of Civil Engineering organised a two days seminar on “Unconventional Civil Engineering” on July 6 - 7, 2017 at Seminar Hall, A. P. Shah Institute of Engineering, for Final year students pursuing Civil Engineering.

The speakers invited to deliver lectures were:

- Prof (Dr.) A. R. Kambekar (Prof & Head, Civil Department, SPCE, Andheri),
- Prof V. B. Deshmukh (Associate Professor, Structural Engineering. Dept., VJTI, Matunga)
- Mr. Deepak Kawale (Assistant General Manager, Metro Rails, Mumbai) and
- Er. Aditya Deshmukh (Structural Consultant, Mumbai)

The seminar covered various topics like understanding the importance of audit in the field of geotechnical engineering, a brief introduction to bridge engineering and also focusses on the metro development. After completion the seminar, the students could identify the various opportunities related to current trends in the field of metro development.



Semester VII, Seminar on ‘Unconventional Civil Engineering’.

Sustainable Initiative at APSIT

Implementation of Composting Project at A. P. Shah Institute of Technology, Ghodbunder Road, Thane

About Plant:

This plant is being started from 8th of December 2017. Contract is given to ECO-ROX which is a registered NGO dedicated to the cause of Clean and Green Environment and also which strongly support our National Mission 'Swachha Bharat Abhiyan'. So with this national mission A. P. Shah Institute is also taking **Ek Paul Swachhataekade**. This plant works under Aerobic Decomposition of biodegradable waste.

Basic Principle of Aerobic Composting:

Composting is the process of manufacturing of manure with biodegradable waste. This process is carried out with the help of microorganisms in the presence of oxygen. Microorganisms decompose the organic matter and convert it into manure.

Technical Details of Plant:

- For aerobic composting process two bins are being used having the dimensions 1.94m x 2m x 0.8 m.
- In this bins daily solid waste generated in college canteen and garden is being processed.
- The waste is dumped in the bins in layers.
- Initially at the bottom of bin a layer of dry leaves is laid, after that a layer of culture and then food waste is dumped in the bins.
- Above this again a layer of dry leaves is laid. Every day the solid waste is added in the same manner as above.
- At the same time turning of the waste is done periodically for the supply of oxygen.
- After the maturation period of around forty days, by-product will be obtained which is called as compost. This compost contains good NPK value and hence used for plant growth.

Plant Set up:





**Difficulties break
some men but
make others.**

-Nelson Mandela

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