



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

गिरजाघर

(निर्माण)

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

(Volume – I, Issue – II)

Editorial Team



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Prof. Vishal U. Misal



Co-editor

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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



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Dr. Uttam D. Kolekar
Principal



Prof. Atul M. Deshpande
Dean Academics



Dr. Sameer S. Nanivadekar
Dean Administration



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 news letter 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. Vishal Misal	Workshop: Retrospection of revised IS code (IS 1893 part I, IS 13920 & IS 383) and Retrofitting	Saraswati College of Engineering Kharghar 02- 06/01/2018	1 week
2.	Prof. Vrushali Suryawanshi	Workshop: Retrospection of revised Is code (IS 1893 part I, IS 13920 & IS 383) and Retrofitting	02 - 06/01/2018	1 week
3.	Prof. Mugdha Agarwadkar	Workshop : Retrospection of revised IS code (IS 1893 part I, IS 13920 & IS 383) and Retrofitting	02- 06/01/2018	1 week
4.	Prof. Pravin Jagtap	Workshop on Modern Surveying	1, 2/02/2018	2 Days
5.	Prof. Vivek Pagey	Seminar on Conceptual Soil Mechanics	3/02/2018	1 day



We're proud
of you

Congratulations

Students' 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.

SEMESTER III

Month	Year	Semester	Name of Student	CGPA
Dec	2017	III	Anchan Nidhi	10
			Shelki Rakesh	9.5
			Mestry Piyush	9.3

SEMESTER V

Month	Year	Semester	Name of Student	CGPA
Dec	2017	V	Padhye Suyash Makarand	9.84
			Chand Manoj Mohan	9.36
			Datir Nayan	9.24

SEMESTER VII

Month	Year	Semester	Name of Student	CGPA
Dec	2017	VII	Salvi Nitesh Sunil	9.11
			Chhipa Aaditya Shyambihari	9.07
			Ahire Urjela Popat	8.96

Gate Achievement

Everyone has intellect and presence of mind. But only few students like you are able to use it at the right time. Congratulations, Ankita Katare, Student of B.E for qualifying GATE Exam Held in February 2018.

Student Development Program

Student Chapter (IGBC)

Department of Civil Engineering, in association with CESA launched the IGBC student chapter on 19th January 2018. The event was attended by more than 150 students from SE, TE of Civil Engineering, and Mechanical Engineering, Departments.

Thanks to IGBC's lead and initiative, today India has become a foremost player of sustainable green architecture in the world. While IGBC has come out with ratings for commercial buildings and new construction, to its credit it now has Green Homes, Factories, SEZs, Townships, Landscapes, Existing Buildings, MRTS & Schools. For the movement to reach higher levels and get firmly rooted in the Indian mainstream, it has to grow upwards through our next generation. That is what IGBC intends to achieve through our support and involvement in building a Greener India. The event made students aware of their role in making the environment green and sustainable.



Semester IV and VI, IGBC Student Chapter Launch by Mr. Bhavesh Mehta (Deputy General Manager, Reliance Industries Ltd.), Ar. Sandeep Shikre (President & CEO, SSA Architects), Ms. Mala Singh (Chairperson & MD, PEC Solutions Green Designs Ltd.)

Project Based Learning

1) AutoCAD 3D

An exclusive training on AutoCAD 3D under PBL for SE students was conducted from 18th June 2018 to 23rd June 2018. Mr. Anjaneya Naidu, ACADD CENTRE, Hydrabad, was invited as resource person for conducting the same. SE III semester students were present for the Training. The expert covered all the topics under AutoCAD 3D and assigned different projects for various groups of students.

Mrs. M. P. Joshi coordinated the training program under the guidance of Academic dean Prof. A. M. Deshpande, Administrative Dean Dr. Sameer Nanivadekar and Principal Dr. Uttam Kolekar. Prof. Komal Gujarati, Prof. Nitya K, Prof. Priyanka Jadhav and Prof. Preeti Kalburgi have also coordinated for smooth functioning of programme throughout six days.



Semester IV, Training on AutoCAD 3D under Project Based Learning.

PROJET DE FIN DE FORMATION

Value Added Program

1) Analysis of beams and frames using STAAD Pro

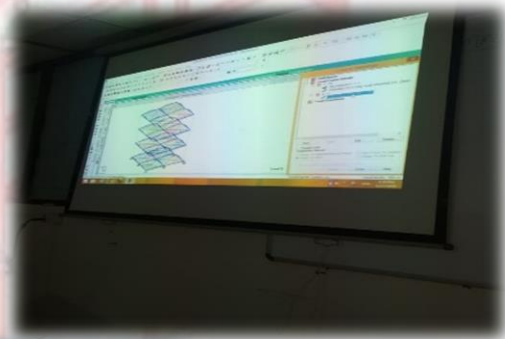
The Department of Civil Engineering organized Value Added Program (VAP) for the Third Year students on “Analysis of beams and frames using STAAD Pro” on 20th June 2018-23rd June 2018. The training program was attended by 24 Nos. of Civil Engineering Department.

Trainer:

- Prof. Umesh Vazurkar.
- Prof. Preeti Kalburgi.
- Prof. Vishal Misal.

Resource Person: Prof. Raksha S. Khandare.

The VAP made students aware about analysis of structural members for different load conditions, supports and material properties. The validation of results was carried out. The session ended with feedback from students and group photograph.



**Semester VI, Value Added Program on Analysis of beams and frames using STAAD Pro
by Prof. Umesh Vazurkar, Prof. Preeti Kalburgi and Prof. Vishal Misal.**

2) Analysis and Design of concrete and steel structures using STAAD Pro.

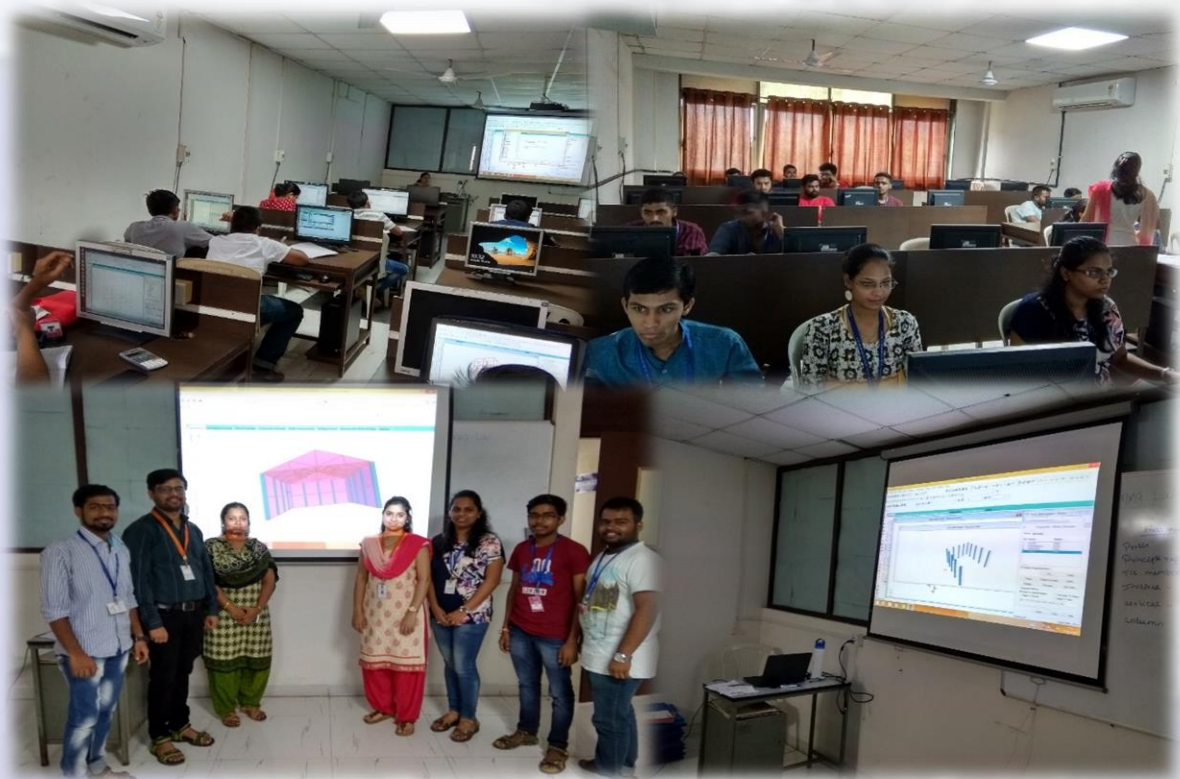
The Department of Civil Engineering organized VAP for the Final Year students on “**Analysis and Design of Concrete and Steel Structure using STAAD.Pro**” on 25th June 2018- 27th June 2018. The training programme was attended by 17 Nos. of Civil Engineering. Department.

Trainer:

- Prof. Preeti Kalburgi
- Prof. Umesh Vazurkar

Resource Person: Prof. Raksha S. Khandare.

The VAP made students aware about analysis of structural members for different load conditions, supports and material properties. The validation of results was carried out. The session ended with feedback from students and group photograph.



Semester VIII, Value Added Program on Analysis and Design of concrete and steel structures using STAAD Pro by Prof. Preeti Kalburgi and Prof. Umesh Vazurkar.

Departmental Activities

Site visits

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) IGBC Industrial Visit, Bhandup.

Department of Civil Engineering, in association with CESA launched the IGBC student chapter on 19th January 2018 at Water E-motions, Bhandup. Thus, an IV was hosted by IGBC to educate students regarding Radiant Cooling and Heating system as the first step towards an interactive relationship. The event was attended by 40 students from SE, TE of Civil Engg. Department. Speakers: Mr. Bhavesh Mehta (Deputy General Manager, Reliance Industries Ltd., Mr. Naitik and Mr. Shrikant).

Basically, they try to incorporate the concept of caves wherein the temperature inside the cave gets automatically controlled. This system can even be embedded in the slab before its casting. The pipes are laid between the top and the bottom reinforcement. Before the slab is casted, the pipes are inspected at a pressure of 7 bar, whereas, their actual application would be at 1 bar, for safety concerns. The pipe once casted, need not be maintained since they aren't subjected to dynamic loads.

The event made students aware of their role in making the environment green and sustainable. A completely new thing was learnt by the students who would surely like to keep up with such new technologies coming in the market for the betterment of society. The session ended on the discussions of many more such interactive sessions and site visits



Semester IV and VI, IGBC Industrial Visit, Bhandup.

2) Effluent Treatment Plant, Khairne

As per the curriculum of University of Mumbai, students of final Year Civil Engineering having Elective II – Industrial Waste treatment required to visit a site as a part of their Term work. A site visit was arranged to Common Effluent Treatment Plant on 07-02-2018, at P 60, MIDC, Khairne which is run by Thane Belapur Association.

About the Plant:

CETP (Thane- Belapur) Association, situated in TTC Industrial area is established in 1994 and registered under section 25 of the Co's Act 1956 and is one of the biggest, best performed and professionally run CETP, in the state of Maharashtra, having capacity 27 MLD.

Common Effluent Treatment Plant helps the industries in easier control of pollution but also act as a step towards cleaner environment and service to the society at large. Common Effluent Treatment plant has been accepted as a solution for collecting, conveying, treating and disposing of effluents from industrial estates. Small and medium scale industries are relieved of the problem of treating their effluents. Waste water treatment is assured, thereby helping pollution control.

In this site visit, students have got the knowledge regarding –

- How the treatment of industrial waste is done in actual practice?
- What are the various essential units of CETP?
- Technical details of each unit with their working
- What are the various laboratory tests done on waste water?
- How safe disposal of industrial waste water can be done?

Also they studied the 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 VIII, Effluent Treatment Plant, Khairne.

3) Water Treatment Plant, Bhivandi.

As per the curriculum of University of Mumbai, students of Third Year Civil Engineering having Environmental Engineering I subject, required to visit Water Treatment Plant site as a part of their term work. A site visit was arranged to Pise-Panjarapur WTP on 16-02-2018, at Panjarapur, Tal. Bhivandi, is run by BruhanMumbai Municipal Corporation, Mumbai.

About the Plant:

Pise Panjarapur (Capacity 2000 MLD) is one of the biggest treatment plants in Asia run by Mumbai Municipal Corporation. It consists of various stages of treatment Plant Stage I, Stage II & III, Stage IIIA. Presently treating 1100 MLD of water and in future it will add further 455 MLD of water for Mumbai. There is water loss of approximately 55 to 65 MLD in the various treatment processes of these stages of treatment plants. This waste water generated from Filter Backwash & Clarifier Desludging is having very high turbidity & suspended solids. This water is discharged into a nearby seasonal natural stream which ultimately goes into Kalyan creek.

To supply safe drinking water is the responsibility of any water utility. In Water Treatment Plant, the raw water is treated for physical, chemical and biological standards to achieve the required drinking water standards. In this site visit, students got the knowledge regarding:

- Functioning of water treatment Plant in actual practice.
- Various essential units of WTP
- Technical details of each unit with their working
- The various routine laboratory tests done on raw as well as pure water.
- Characteristics of raw and treated water
- Permissible drinking water standards.



WTP Site Visit

Semester VI, Water Treatment Plant, Bhivandi.

4) RMC Plant, Gaimukh.

A site visit was arranged to RMC plant on 15th February 2018 at 10.00 am for Building Materials and Construction Technology subject at BITCON RMC PLANT, Gaimukh. The event was attended by Second Year A and B division students.

BITCON RMC Plant:

Here, systematic production of concrete is carried out. Required amount and quantity of concrete can be supplied early since each and every grade of the concrete is readily available in computer. It can be also operated manually. Different types of sand and admixtures are available on this plant.

Benefits:

- Extra awareness about applications BMCT laboratory experiments
- Knowledge about the site conditions where RMC plant proves useful
- Improved knowledge about information of use of admixtures
- RMC plant visit was beneficial to gain overall idea about elements of batching and mixing process



Sesmester IV, RMC Plant, Gaimukh.

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) Seminar on “Industry involvement for meeting the challenges of tomorrow”.

The Department of Civil Engineering, in association with CESA organized a one-day seminar on “Industry involvement for meeting the challenges of tomorrow” on 9th March 2018, at Seminar Hall, Ground floor, APSIT. The event was attended by more than 100 students from SE, TE & B.E of Civil Engineering Department.

Details of the Seminar:

The Seminar was organized for the S.E, T.E & B.E students of Civil Engineering Department. Experts from industry delivered lectures in the respective domains of the field and could make understand students the future need of the industry.

The event made students aware about designing details, details of tunnel Engineering and importance of arbitration in Civil Engineering. The session ended on the discussions of many more such interactive sessions and site visits.



Semester IV, VI and VIII, Seminar by Er. Hemant Vadalkar (Consulting Engineer at Vadalkar & associates), Mr. Taskar (Ex. CEO) and Mr. Vinay Deshpande (Retired Deputy Chief Engineer-BMC) on ‘Industry Involvement for Meeting the Challenges of Tomorrow’.

2) Earthquake Engineering

Indian earthquake engineers have made significant contributions to the seismic safety of several important structures in the country. However, as the recent earthquakes have shown, the performance of normal structures during past Indian earthquakes has been less satisfactory. This is mainly due to the lack of awareness amongst most practising engineers of the special provisions that need to be followed in earthquake resistant design and thereafter in construction. A seminar was conducted for the students of civil engineering department by Civil Engineering Student Association (CESA) at A. P. Shah Institute of Technology on 9 March 2018 at 10.00a.m. to discuss the role of earthquake-resistant structures in Civil Engineering.

The seminar started at 10.00 am with welcoming the speakers of the session by Prof. Pooja Rao (Head of the Department) followed by a short introductory speech on the background of the speakers delivered by Mr. Siddharth Dhanavde. The seminar was divided into two sessions, the first session was led by Mrs. Kirti Vadalkar who gave a brief idea about earthquake, basic terminologies and certain bylaws. The second session was delivered Er. Hemant Vadalkar who introduced the technicality of the design of an earthquake resistant structures to the students. In the first session Mrs. Kirti Vadalkar in her presentation not only explained the importance and necessity of a structure to be earthquake resistant, but also what exactly happens beneath the surface of earth that leads to the destruction of everything above the surface in fraction of seconds. The IS codes for structures and certain laws that should be followed while designing in order to make the structure resistant to earthquake.

The seminar was concluded with a vote of thanks by Mr. Suyash Padhye (President of CESA). In his short speech he also highlighted the fact that earthquake engineering is an interesting field to pursue for higher studies. It was an amazing experience for all who attended the seminar.



Semester VI and VIII, Seminar on 'Earthquake Engineering'.

Work Shop

1) Total Station

Activity:

The department of Civil Engineering, A.P. Shah institute of Technology organized a Two day's workshop on Total station 1st and 2nd Feb.2018 for S.E. Civil A and B division students. Workshop was organized with the prior permission and guidance of honourable Principal Dr. U. D. Kolekar, A.P.S.I.T, Thane, and HOD Prof. P.S. Rao by the initiative and hard efforts of Prof. P. S. Jagtap , Prof. Raghvendra and Prof. P. A. Jadhav . Mr. Parmar from Lawrence and Mayo guided around 110 students of S.E. Civil during the workshop with the staff members.



Semester IV, Workshop on use of 'Total Station' by Mr. Parmar (Lawrence and Mayo).

Seminar on Higher Education in Germany

Higher Education Opportunities in Germany by ERFOLG Counselling Services LLP.
Date: 21st March 2018 Time: 3:00 – 4:00 pm Venue: Seminar Hall, Ground floor, APSIT
Participants: 150 students and 15 faculty members Speakers: Mr. Shriram Kalburgi (German Higher Study Counsellor) Mr. Parva Sawant (German Higher Study Counsellor) Organized by: Department of Civil Engineering, in association with CESA (Civil Engg. Students Association) Department of Civil Engineering, in association with ERFOLG Counseling Services LLP delivered seminar on 21st March 2018. The event was attended by more than 150 students from SE, TE and B.E of Civil Engineering Department.

About IGBC:

ERFOLG provides German counselling services to the Engineering Students. Over the time, we have helped students to develop their career by providing them guidance, support and enabling them to become successful in their future. ERFOLG has an excellent team with several years of counselling expertise & professional experience in undertaking admission and other related processes in various German universities. ERFOLG methodology of systematic approach towards guiding our students is backed up by expert team and helping them to make the best decision in order to maintain and achieve excellence in academics.

We are specialised in:

- Career Counselling based on their academic performance.
- Assistance in University Selection and application.
- Visa Preparation, Training and Documentation.

Accommodation Assistance Benefits:

- Free guidance to the students and faculties
- Career opportunities.
- Free education system in Germany.
- Presented Information related to Job and Internship opportunities in Germany.

Sustainable Initiative

Moringa Seeds for Water Purification

On the eve of World Water Day, VJTI College had organized the Inter-collegiate Poster Presentation competition on 22nd March 2018. The theme for this competition was, “*Nature Based Solutions for Water*”. Urval Shah, Aditya Rampure, Akash Vichare and Suyash Padhye from third year civil engineering, participated in the competition.

Lack of appropriate and low cost purification techniques in most of the rural parts in India compel the rural communities to resort to readily available water resources which are normally of low quality, thus, exposing them to waterborne diseases. As a nature based solutions that are revolutionary and possess the potential to solve problems connected with water, effectiveness of *Moringa oleifera* seeds as a coagulant is verified to tackle the existing crisis in such remote areas in India. The extracts of seeds are used to treat contaminated water.

M. oleifera change the drinking waterfront as well as preliminary sewage treatment front in the rural areas of India. It can also be implemented in IGBC Certified complexes in the form of in-house vertical farms and also for recycling sewage for general use purposes. Sludge formed in the settling process can be used as bio-fertilizer to generate revenue to make the process more cost-effective.



Semester VI, Nature Based Solutions for Water.

Cultural Program

Winner of “*Singh is King*” - Event conducted in OJUS 2018.



Civil Engineering faculty - Winner of “*Singh is King*” - Event conducted in OJUS 2018.

“Your body is a weapon and consider it very strong. Consider your mind to be very strong as only with strong mind and body you will be able to cross the ocean of life. Have a strong faith in yourself, your body and mind.”

-Swami Vivekananda



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