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OUR VISION AND MISSION

OUR VISION

“To excel in the field of technology by creating technocrats with value based professionalism”

OUR MISSION

1) To provide technical expertise to fulfil the needs of industry. 2) To impact ethical values and professional responsibilities. 3) To achieve excellence in academics

CIVIL VISION AND MISSION

“To impart quality technical education beneficial to industry and the society in the field of Civil Engineering.”

1) To arrange academic and technical expertise. 2) To improve the practical knowledge of the student as per current scenario of industry. 3) To make the students socially and ethically responsible.

MECHANICAL VISION AND MISSION

“To Incorporate Technical and Professional Skills in Mechanical Engineers to Fulfill Industrial and Social Needs.”

1) To Educate, Guide and Mentor the Students for Academic Excellence. 2) To Develop Technical Skills and Discipline among the Students as per Requirement of Industry. 3) To Impart Ethics and Social Values by Arranging Social Activities.

COMPUTER VISION AND MISSION

“To contribute the society through excellence in scientific and knowledgeable based education science with a deep passion.”

1) To transform students in to technically components, socially responsible and ethical computer science professional. 2) To promote creative teaching learning process that will strive for academic excellence in field of computer engineering. 3) To enhance the technical expertise of students through workshop & Industry institute interaction

As part of editorial team, we welcome all suggestion, articles, news regarding engineering academic field or accomplishment of your classmates. Please send your suggestions, queries at avikinkar@gmail.com or hiteshsharma0427@gmail.com or call on 8828476085 (Hitesh Sharma)



We attended 14th International exhibition and conference on smart and sustainable city solution on 18th, 19th, and 20th of May 2017 at Cidco Exhibition centre. The name of the conference was 'MUNICIPALIKA 2017'. We attended three days of technical session which includes Innovative building materials and technologies for building and infrastructure applications, Techno-legal regime for acceptance of new products and approval systems including standards, testing & certification, Green building technologies and products, Modern construction systems, practices and technologies, Water supply & sanitation.

3rd year students had visited the Road under construction site at Kamothe, Navi Mumbai under the subject "Highway Engineering" on 31st January 2017 along with staff member Mr. Vinay Kamble and Mrs. Manisha Sawant. We went to see the construction of water bound macadam, Bituminous and concrete road construction. We learned the formation of each layer of road, functions of each layer in road pavement, chamber provided, gradient provided to longitudinal road section, transverse and longitudinal drainage, safety precautions at site and expansion, contraction & construction joints in road pavement structure.

3rd year students had Industrial visit on 7th February at BIO GAS & COMPOSTING PLANT at Koperkhairane, Navi Mumbai under the subject solid waste management. There students observed the production of bio gas, waste produced from kitchen and industry. So as to keep the environment clean. Otherwise this will produce harmful gases by bio-logical decomposition of such households waste at open places.

30th June 2017 had a guest lecture on STAAD Pro software of designing structures in civil engineering for 3rd year student. They learned designing of steel structure and Reinforced cement concrete structure and various other applications in structure engineering by using STAAD Pro software which was time consuming manually.

The Second year students of civil department visited Rupa Renaissance Ltd., Turbhe (Under Construction Site) on 25th July, 2017 to gain some practical knowledge on building construction as it is part of (III semester) Civil Engineering. It helped the students to gain the practical knowledge in under construction of sub-structure and super-structure. They also gained the knowledge in plastering with cement mortar and P.O.P and shuttering. The structure was environment friendly and composite structure. It is one of the 15 environment friendly buildings in Mumbai and Navi Mumbai. Faculty Ms. Darshana Ghankute for arranging the Site visit. We would also like to thank Mr. Rahul Yadav and Mr. Vinay Kamble for their support and encouragement.

The third year students of civil department visited Sewage Treatment plant on 2nd August, 2017 to gain some practical knowledge on Sewage Treatment as it is part of (5th semester) Civil Engineering. The source of sewage was domestic waste water from Kamothe area. The treatment capacity of the plant was 85 MLD. They also went to laboratory in the plant to see the various experiments and test on sewage water to be conducted before treatment. They observed Sewage sump, pumping system, Screening (manual & automatic), Grit chamber, Aeration, Sedimentation tank, Chlorination, Removal of excess sludge, Disposal of treated water in sewage treatmentcontinue on page 3

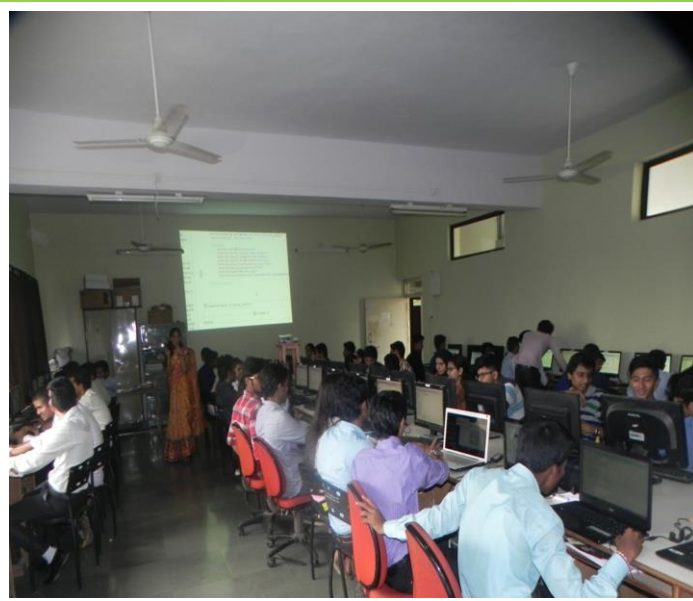


Dr. SUMAN RAWAT had visited our campus for two days dated 6th & 7th FEB, 2017 to give us some information about Engineering Geology which is very valuable as it is a core subject in our educational curriculum. She gave us appropriate information about general geology, structural geology and earthquakes. We are thankful to Dr. SUMAN RAWAT for giving us information about the same. We appreciate Prof. D. R. SUROSHE (Principal) and Mr. DATTATRAY BANGAR (HOD) to arrange the guest lecture and also our faculty Mr. Rahul Yadav and Mrs. Naha Giri for their support and encouragement.

Mr. Hemantkumar Sonawane sir had visited our campus on 31st July, 2017 to give us some information about new techniques in civil engineering and information about Low cost housing which is very valuable and enhance our knowledge, as Civil engineering is core subject in our educational curriculum of second year. He gave us appropriate information about various techniques use for low cost housing and also discussed about necessity of the thorough knowledge. He gave us the proper direction which will help us in future for creating effective new trends in civil engineering.

~Vinay Kamble

Programmable Computer



The Computer Branch in SIOT, Kharghar has 60 students and 4 faculty members. A State Level Program debugging competition (TECHPRO) was organized on 16th & 17th feb 2017 for C, C++ & JAVA. Overall 200 students participated in the event and Students from A.C Patil & Bharti Vidyapeeth stood 1st, 2nd & 3rd. It was an MSBTE sponsored competition. As the demand for Software debugger & tester are currently in market. So it was an attempt to enhance the programming and logical strength of student.

We held an Industrial visit at VFX seamedu at Belawadi Pune. As animation and VFX are the latest trend in the Hollywood and Bollywood flick. Students were benefitted as they were shown the games and animated movies are shot and how music and background scores are added.

We arranged an Expert lecture on “Database Management System” on 4th August, 2017 by Mr. Gajendra Kumar mahto who is working in Ptrek solutions in Jogeshwari. The Expert gives Introduction to different techniques that could be helpful for the students in the field of database. He is an Database administrator working with Ptrek solution that provides a database backup to BigBazar and has an experience of 10 year in DBA. He also handle various aspects of programming & implementation. He discussed about various aspects of Database and how it is done in projects and what is the importance of it. All the students were benefitted as they have a RDBMS subject in this Sem.continue on page 4



We arranged an “Android Development Workshop” for a duration of 3rd Aug, 2016 – 5th Aug, 2016.

Mr. Yogesh Bhole was the head of the training of the program. This lecture helped the student to know more about ANDROID & the basic creation of ANDROID Application.

60 student from various college participated in this workshop. And students are fully enjoy this workshop and they create their own application by attending this workshop. This will helpful to them for new start-ups.

~Yassir Farooqui

Humanity First Year



The Science & Humanities Department has enthusiastic & dynamic faculty who strive to achieve excellence in teaching-learning process. The department incorporates the faculty of Chemistry, Physics Mathematics and English. The first year students of all branches are equipped with strong quite essential knowledge of their subjects under the guidance of this department.

The department meritoriously organizes various events for the enrichment of the staff & students. Some of the important activities pertaining to the Science & Humanities Department are highlighted below;

Celebrated National Science Day-2017:

Department of Science & Humanities has organized Project & Model Competition based on, “Ecofriendly Technologies for Sustainable Development” on 28th Feb, 2017 under Indian Society of Technical Education to celebrate National Science Day.

Near about 100 students of all branches participated in the competition to explore their technical talent. Students presented various innovative & application based projects through power point presentation & charts. Our Principal Prof. D. R. Suroshe & all HOD’s encouraged the students through various guidance tips.

Following are winners in Project Competition 2017;

1. Aanand Salunkhe of CE B received FIRST PRIZE his project based on Water Purification System
2. Abhishek Saude (CE A), Subrat Nayak (CE A), Chaitanya Nikam (CE B), Rohan Hajare (CEA), Sankalp Madhavi (CO), Smit Mhatre (CEA) received SECOND PRIZE their project based on Smart Sustainable City.
3. Insha Khan (CO), Gurusharanjeet Kaur (CO) received THIRD PRIZE their project based on Ecofriendly Developed city.

~ Shamal Naikwadi



We Organized Industrial Visit on Dated 03rd March 2017 “GREEN SUGAR FACTORY” SATARA. More than 80 Students and 2 staff of 2nd Year Mechanical Department Participated and Studied about Boiler Types, Working Principle of Boiler and Uses of the Boiler in This Visit. They also watched Sugar Making Process and other Sugar Factory Related Products.

Final year students show the successive movement in technical field by getting the Patent of final year project name as "**Mechanical Comfort Chair**". With this students complete their Project at Biodiesel Institute, Baramati on "Investigation of effect of biodiesel its blends on diesel engine" Added to this students had an sponsorship for the project name as "Autotracking for solarpanel to improve performance" by L & T Hub and spoke.

Students of our department also did the internship at Fort point company, ray road, mumbai., Maruti Suzuki automotive, nerul., Central railway, parel., Harbour railway, kurla., parveen industries, rabale., Kumar engineering works, thane., Eicher, thane., BEST workshop, Wadala., L & T, ghansoli., Audi, mazgaon.

Also our staff attended Short Term Training Program on “RESEARCH METHODOLOGY and its APPLICATIONS”, was Attended by Mrs. Priti .V Dahake at Government Polytechnic Amravati Dated 13th January 2017 to 17th January 2017. This training added the knowledge and information about plagiarism in research, patent filling techniques and research methods.

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Continued by this Another Short Term Training Program was Attended by Mrs. Sarika .T Raut and Mr. Parameshwar Devkar at META TECH EQUIPMENT (I) Pvt .Ltd Pune. Their Training Program was about “ADVANCE ENGINEERING MATERIALS AND TESTING TECHNIQUES”. They learn the techniques used to check the quality of different types of materials and composition.

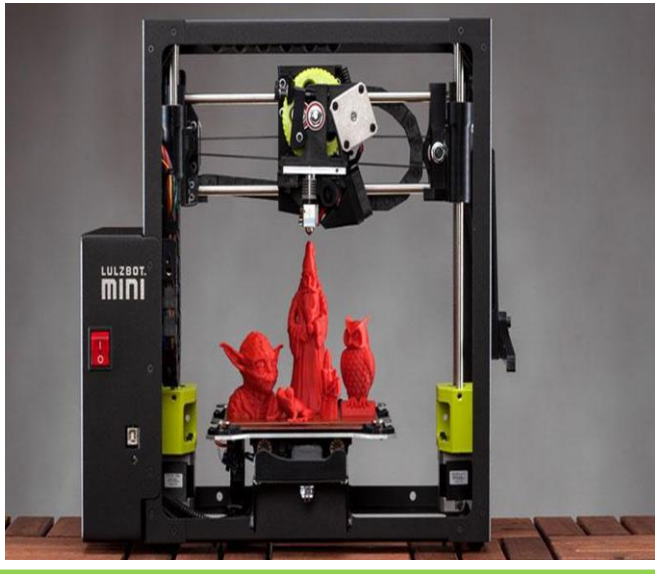
Next Faculty Industrial Training Program was attended by Mr. Amar Murumkar and Ms. Geetanjali Naik at “KIRLOSKAR BROTHERS .LTD”, SANGALI on 14th March 2017 to 16th March 2017. This visit was about Working of Pumps, Types of Pumps, Construction and the Latest Technology used in this System.

Again in the Month of June dated 28th June 2017 to 30th June 2017 Industrial Training Program was attended by our Mechanical Department Faculty Mr. Amar Murumkar and Mrs. Priti. V Dahake at “M/s KEC INTERNATIONAL Ltd “, NAGPUR. And this visit was about the “TRANSMISSION LINE TOWERS”, which is used for Transferring Huge Amount of Power Supply from Power Source to City or Required Areas. They Learnt about Different Sizes of Towers Used in Different Places for Different Purpose.

At “CENTRAL INSTITUTE OF PLASTIC ENGINEERING AND TECHNOLOGY”, the Faculty Industrial Training was Held on 24th July 2017 to 28th July 2017, which was on CREO, SOLID WORKS, RAPID PROTOTYPE. They Learned about Different Plastic Molding Process and Plastic Making Process. Along with this Knowledgeable Training and Industrial Visits,

~Priti Dahake

3D PRINTING



3D printing, also known as additive manufacturing (AM), refers to processes used to create a three-dimensional object in which layers of material are formed under computer control to create an object.^[2] Objects can be of almost any shape or geometry and are produced using digital model data from a 3D model or another electronic data source such as an Additive Manufacturing File (AMF) file. **STereoLithography (STL)** is one of the most common file types that 3D printers can read. Thus, unlike material removed from a stock in the conventional machining process, 3D printing or AM builds a three-dimensional object from computer-aided design (CAD) model or AMF file by successively adding material layer by layer.

History

Early additive manufacturing equipment and materials were developed in the 1980s. In 1981, Hideo Kodama of Nagoya Municipal Industrial Research Institute invented two additive methods for fabricating three-dimensional plastic models with photo-hardening thermoset polymer, where the UV exposure area is controlled by a mask pattern or a scanning fiber transmitter.

On July 16, 1984 Alain Le Méhauté, Olivier de Witte, and Jean Claude André filed their patent for the stereolithography process. The application of the French inventors was abandoned by the French General Electric Company (now Alcatel-Alsthom) and CILAS (The Laser Consortium). The claimed reason was "for lack of business perspective".

Applications

In the current scenario, 3D printing or AM has been used in manufacturing, medical, industry and sociocultural sectors, which facilitate 3D printing or AM to become successful commercial technology. The earliest application of additive manufacturing was on the tool room end of the manufacturing spectrum. For example, rapid prototyping was one of the earliest additive variants, and its mission was to reduce the lead time and cost of developing prototypes of new parts and devices, which was earlier only done with subtractive toolroom methods such as CNC milling, turning, and precision grinding. In the 2010s, additive manufacturing entered production to a much greater extent. Additive manufacturing of food is being developed by squeezing out food, layer by layer, into three-dimensional objects. A large variety of foods are appropriate candidates, such as chocolate and candy, and flat foods such as crackers, pasta, and pizza. 3D printing has entered the world of clothing, with fashion designers experimenting with 3D-printed shoes, and dresses. In commercial production Nike is using 3D printing to prototype and manufacture the 2012 Vapor Laser Talon football shoe for players of American football, and New Balance is 3D manufacturing custom-fit shoes for athletes.

The Raspberry Pi



The Raspberry Pi is a series of small single-board computers developed in the United Kingdom by the Raspberry Pi Foundation to promote the teaching of basic computer science in schools and in developing countries. The original model became far more popular than anticipated, selling outside of its target market for uses such as robotics. Peripheral including keyboards, mice and cases) are not included with the Raspberry Pi. Some accessories however have been included in several official and unofficial bundles. According to the Raspberry Pi Foundation, over 5 million Raspberry Pis have been sold before February 2015,

Underground living



Underground living refers to living below the ground's surface, whether in naturally occurring caves or in built structures. Underground dwellings are an alternative to above-ground dwellings for some home seekers, including those who are looking to minimize impact on the environment. Factories and office buildings can benefit from underground facilities for many of the same reasons as underground dwellings such as noise abatement, energy use, and security.

Some advantages of underground houses include resistance to severe weather, quiet living space, an unobtrusive presence in the surrounding landscape, and a nearly constant interior temperature due to the natural insulating properties of the surrounding earth. One appeal is the energy efficiency and environmental friendliness of underground dwellings. However, underground living does have certain disadvantages; such as the potential for flooding, which in some cases may require special pumping systems to be installed.

It is the preferred mode of housing to communities in such extreme environments. Often, underground living structures are not entirely underground; typically they can be exposed on one side when built into a hill. This exposure can significantly improve interior lighting, at the expense of greater exposure to the elements.

First, weather would no longer be important, since it is primarily a phenomenon of the atmosphere. Rain, snow, sleet, fog would not trouble the underground world. Even temperature variations are limited to the open surface and would not exist underground.

Whether day or night, summer or winter, subtropical or sub polar, temperatures underground would be in the neighborhood of 55 to 60 degrees Fahrenheit. The vast amounts of energy now expended in warming our surface surroundings when they are too cold, or cooling them when too warm, could be saved. The damage done by weather to humanity and its structures would be gone. Even earthquakes would be only about one-fifth as damaging beneath the surface.

STTP ON NBA ACCREDITATION



Our institute has organised an ISTE approved one week short training program on “NBA ACCREDITATION & SAR writing techniques.” From 07/08/17 to 11/08/17 around 33 in-house & 20 outside faculties had participated. The speaker of the event were on first day Dr S.N. Takaliker, Principal, St. John college of Engg. Palghar had guided the participant about the importance of NBA in polytechnic colleges.

The second session of first day was conducted by Dr.A.K. Kureshi, Principal of M.H. Saboo Siddik Polytechnic, Byculla ,on criterion 1 & 9. On second day of first session ,Prof. Vidya Lunge (HOD,Extc. , Vivekanand ploytechic, Chembur) gave information about criterion 2 &7. The second session was conducted by professor Rameshwar Tambat(HOD,Civil,K.J. Somaiya polytechnic,Vidivihar) on overview of SAR writing techniques. Day 3 was held by Professor Deena Shah(Vivekanand ploytechic, Chembur), who had given information about criterion 4. On fourth day Dr. A. S.Wayal (HOD Civil, VJTI, Mumbai) & Dr. Ramesh Karandikar (Asso. Prof. Extc K. J. Somaiya College of Engineering, Vidyavihar) had given information about criterion 3 & 6 and 3 & 8 respectively. On last day was held by Dr. Vitthal Bandal (Principal, Govt. Poly. Karad) who had given info about NBA evaluator's perspective. The main objectives of STTP were to awake the participant about NBA accreditation process and to give knowledge about SAR criteria.

~Manisha Bhagat

Cultural Euphoria



We have organized the college first cultural event Republic day. It was marked by the unfurling of the National flag by the Principal Sir. In his speech he mentions the significance of the day to students and teachers. Also, we organized Nakshatra-2017 which was the voice of young creative minds of SIOT, Kharghar. The first cultural festival Nakshatra-2017 was a great success and become a mark, pride and glory for SIOT, Kharghar. This was started by melodious performance by Ms. Harshada Jadhav SY Civil (Ganesh vandana).

The media partners were Sakal newspaper and Saam TV organized by Mr. Abhishek Bhosale TY Mechanical. These three days cultural festival finally bought the enthusiasm and dedication of SIOT Kharghar. At the end of the cultural festival everyone looked to its return in 2018 with the greater happiness, joy, smile and spirits as well as participants.

On 21st June we organized the International Yoga Day. A Chief Guest of the program was Mrs. Pradnya Patil from Yog Niketan Vidya Mandir, Vashi. She expressed her views, opinion about the Yoga the event concluded with light refreshment and cleanliness drive was organized and carried out by students and staff.

Also we have organized blood donation camp by the Students Council Committee. The principal of SIOT had inaugurated the camp and awarded certificates to the blood donor.

~Samadhan Landge

Our Toppers 2016-17



MECHANICAL

SHUBHAM JATHAR -: 92%



COMPUTER

NEELU VISHWAKARMA -:80%



CIVIL

SAYALI AWHAD:-94%



The Engineering Community across India is celebrating Engineers Day on 15 September every year as a remarkable tribute to the greatest Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya (popularly known as Sir MV). He is held in high regard as a pre-eminent engineer of India. "Engineering Challenges for Knowledge Era" is the theme of Engineers Day 2015.

You can not believe on god until you believe in yourself ~ Swami Vivekanand