

# NEUTRALIZE

WINTER EDITION 2020



## Chemical Engineering

Chemical engineering is a multi-disciplinary branch of engineering that combines natural and experimental sciences (such as chemistry and physics), along with life sciences (such as biology, microbiology and biochemistry) plus mathematics and economics to design, develop, produce, transform, transport, operate and manage the industrial processes that turn raw materials into valuable products

### IN THIS EDITION

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ACHIEVEMENTS OF STUDENTS

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FACULTY AT THE BEST

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CREATIVITY OF STUDENTS

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TECH REPORTS

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CHEMICAL QUIZ

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TEAM NEUTRALIZE

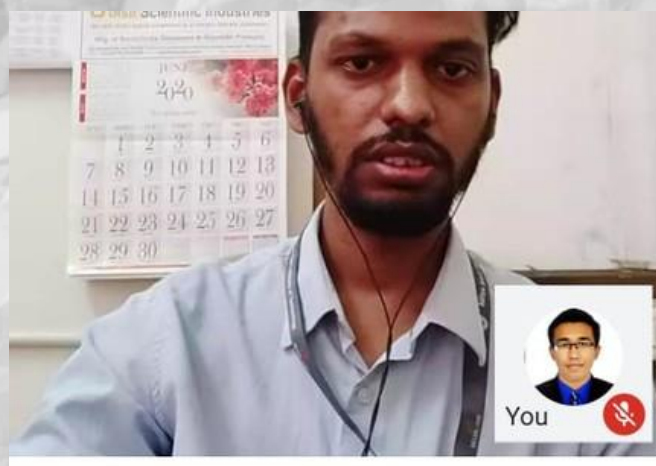
## *HOD's Message*

Dear friends, colleagues, and alumni, I am very happy that our Chemical Engineering Department is releasing the Diwali issue of 'Neutralize' as a forerunner of department activities. It is a technical platform to bring out the hidden talents of students and faculty. The students and faculties of the department are always proactive in taking initiatives in technical, cultural and social events. The department has qualified and dedicated faculty with well-developed laboratories. We impart quality engineering education through sound theoretical knowledge, hands on laboratory as well as computational skill and exposure to recent technologies by visiting industries & expert talk. In spite of the challenging time of COVID-19, we provided opportunities for the students to participate in various online technical events / competitions and showcased the best possible outcomes. We look forward to keeping the same trend in the future. I wish good luck to the entire team of editors and look forward to your kind patronage to our newsletter. I hope that this newsletter will serve the purpose of reflecting all activities of the department and it will inspire others to do their best

# HOW TO IMPROVE CONCENTRATION DURING ONLINE CLASSES

**Date:- 4th July,2020**

Mr. Vijay Singh, Faculty of Chemical Engineering Department of Silver Oak University conducted a session on “How to improve concentration during online classes”. He emphasized that new times present new opportunities for innovation and creativity for both students and faculty. This is because with instant access to all of the information the internet has to offer, students are less dependent on the teacher and this can be the perfect time for practicing skills like organization, self-motivation and digital communication. To successfully learn no matter if it is online or offline you need to dedicate a significant amount of time on your learning goals, to concentrate enough to keep being productive, and to fully commit to your own learning process. He also discussed about how to maintain a routine, create the perfect workspace, update your technical knowledge, eliminate distractions, utilize learning strategies. Hence the session literally helped the students of chemical engineering programming to improve themselves to stay focused, and improve and enhance their various skills which utmost focused on concentration during their online lectures and seminars. The session helped students a lot to again concentration and other important things a successful chemical engineer should have.



**The first step to knowledge is to know that we are ignorant.  
-Socrates**

# STRATEGY TO TACKLE MCQs

**Date and Day: -20th September 2020,  
Saturday**

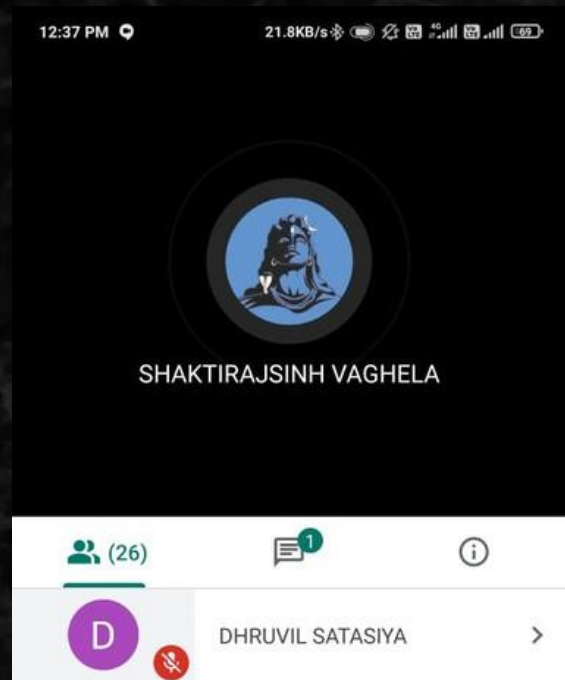
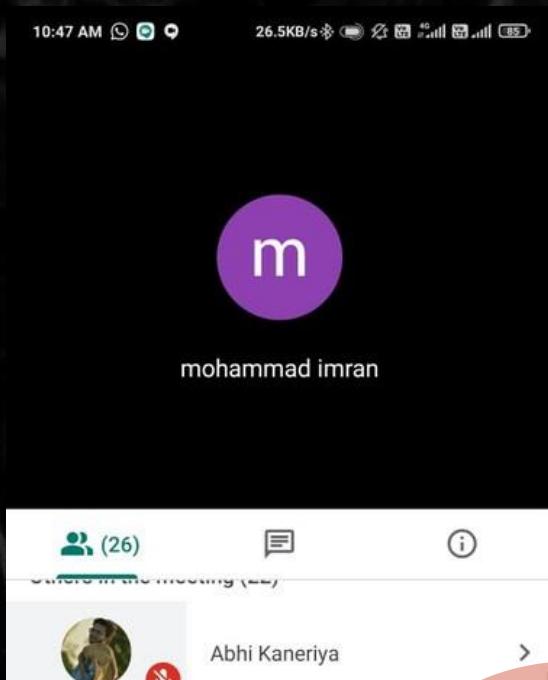
As the result of pandemic, this year the education switched from offline mode to online mode. As a result of which the examination changed from offline mode to online mode as well, which included MCQs (Multiple Choice Questions). Because of this, many students faced dilemma about the strategy to be used to tackle and solve such MCQs questions and to crack it easily. Keeping in mind this crucial problem of students, Chemical Engineering Department conducted a session on how one can tackle the MCQs in the online mode of examination. It was conducted on Saturday, 20th September 2020.

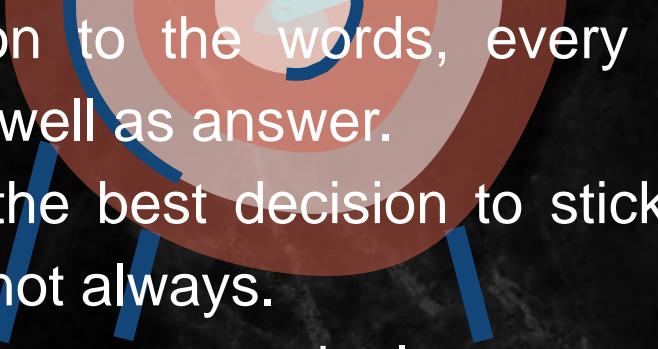
The whole session covered up the following points, techniques and strategies which were useful for students. Also, asked students to keep in mind these points while appearing in online mode of examination.

- Read the entire question properly.
- Answer it in your mind first.
- Eliminate all the wrong answers.
- Use the process of elimination.
- Select the best and the most relevant option/answer.
- Read all the options given carefully, and understand each well as they might be all tricky.
- Always first, Answer the questions which you know.
- Make an educated guess (if needed).

Be more concerned with your character than with your reputation, because character is what you really are while reputation is merely what others think you are.

-John Wooden



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- Pay attention to the words, every single word of question as well as answer.
  - It's usually the best decision to stick with your first choice- but not always.
  - When there are seemingly two correct answers, place your bet on the positive option.
  - The more information, the better chances to score more.

Hence the overall session was very successful and interactive as well, also it gave students the ideas and strategies which help them to tackle the MCQs.

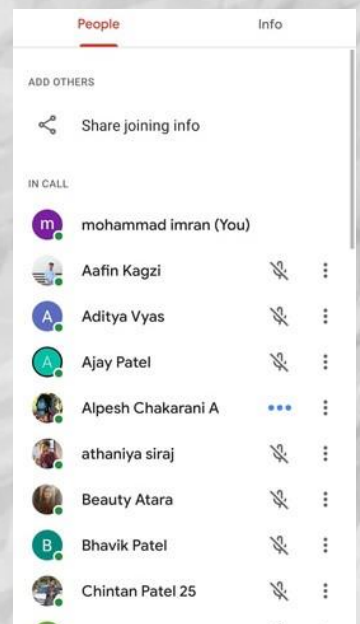
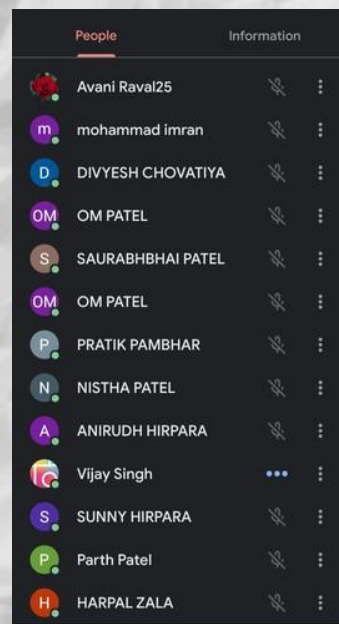
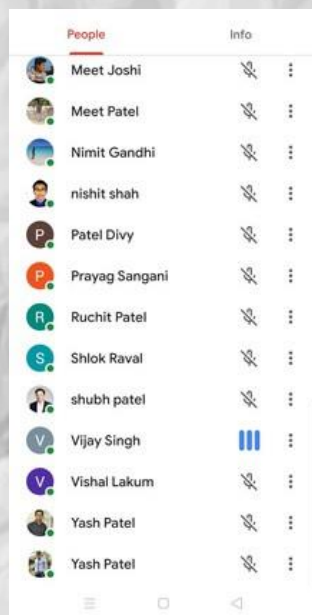
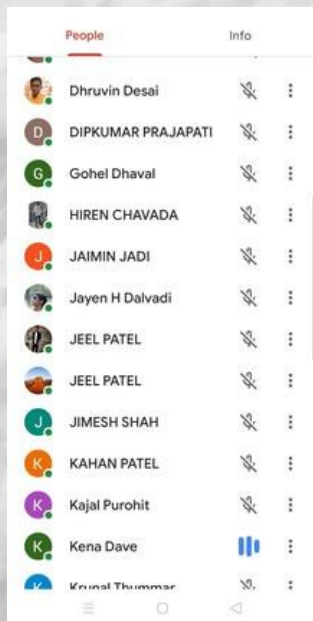
Success is measured not so much by the position one has reached in life, as by the obstacles one has overcome while going to succeed.

-Booker T. Washington

# WHY EXTRA & CO-CURRICULAR ACTIVITIES ARE IMPORTANT?

**Date: 22nd October,2020**

Chemical Engineering Department of Silver Oak University arranged a session for all the students on “Why extra & co-curricular activities are important?”. The session was conducted on 22nd October,2020 which was divided into 4 parts, each of 40minutes duration during which all the faculties and Head of the Department, Mr. Vijay Singh interacted with all the students of Degree and Diploma. Mr. Vijay Singh started the session explaining about how co-curricular activities are important. He explained that such activities will help the students to develop problem-solving, reasoning, critical thinking, creative thinking, communication and collaborative activities. He discussed that getting involved in activities outside of college can help students meet new people with whom they can share their interest and get to know new people and gain knowledge for their interests. Further he discussed that extracurricular activities will help students to expand their networks which will be beneficial for finding career opportunities after graduation.



Thus, the session encouraged all the students to participate in extracurricular activities for their own benefit.

**The next best thing to knowing something is knowing where to find it.**

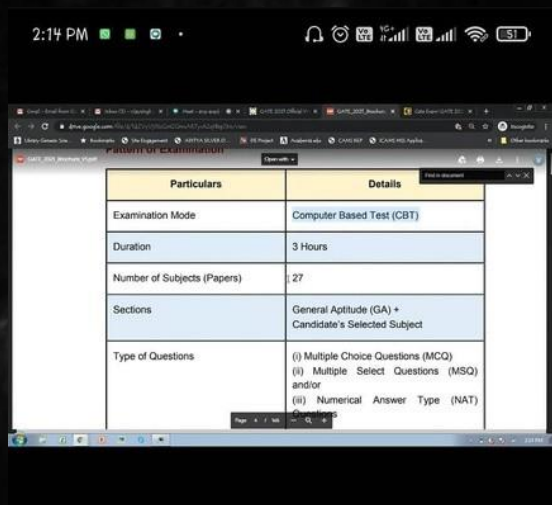
**-Samuel Johnson**

# HOW TO PREPARE FOR GATE

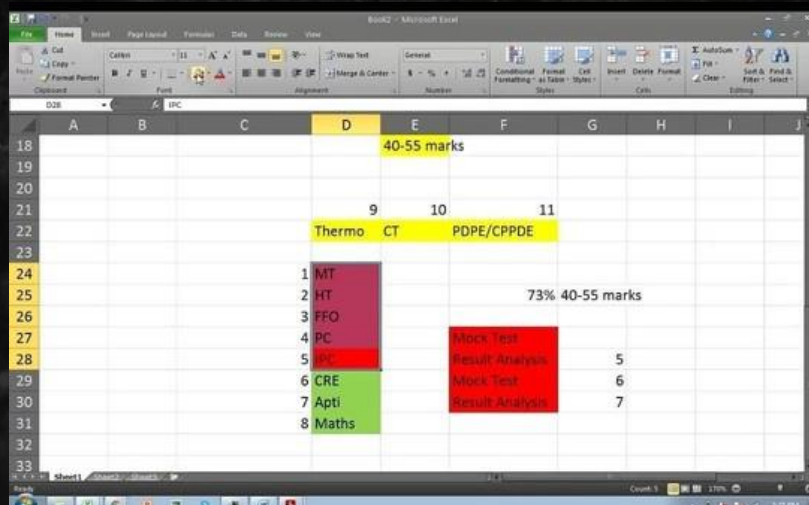
Day & Date: Monday, 24 August, 2020

Graduate Aptitude Test in Engineering (GATE) is basically a national examination on the comprehensive understanding of the candidates in various undergraduate subjects in Engineering / Technology / Architecture. GATE is ladder for the students who want to go for masters in their respective fields and it is a great opportunity to opt out one's career. Taking into consideration, Mr. Vijay Singh, HOD, Chemical engineering department, SOU organized a session for students of final and pre final year on 24th August 2020 at 2pm on Google Meet to convey the importance and opportunities of GATE that students can achieve. He apprised new tricks and quick techniques to tackle questions within short period of time as well as methodology for preparations. He emphasized the students to have a specific goal before appearing for any entrance examination. He also discussed the importance of time management for such competitive exams. He encouraged the students to solve more problems to gain more insightful knowledge of the courses.

A Gate club also came into existence followed by departmental faculties, which is very helpful to the students, also study material is provided for betterment. Students are really getting much support from faculties ;doubts have been solved and even mock tests are also performed.



Particulars	Details
Examination Mode	Computer Based Test (CBT)
Duration	3 Hours
Number of Subjects (Papers)	27
Sections	General Aptitude (GA) + Candidate's Selected Subject
Type of Questions	(i) Multiple Choice Questions (MCQ) (ii) Multiple Select Questions (MSQ) and/or (iii) Numerical Answer Type (NAT)



	9	10	11
	Thermo	CT	PDPE/CPPDE
1 MT			
2 HT			
3 FFO			
4 PC			
5 IPC			
6 CRE			
7 Apti			
8 Maths			

73% 40-55 marks

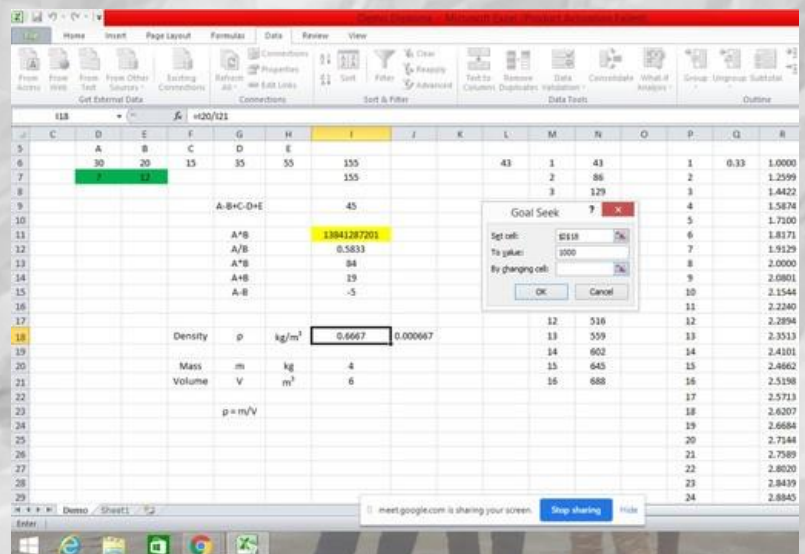
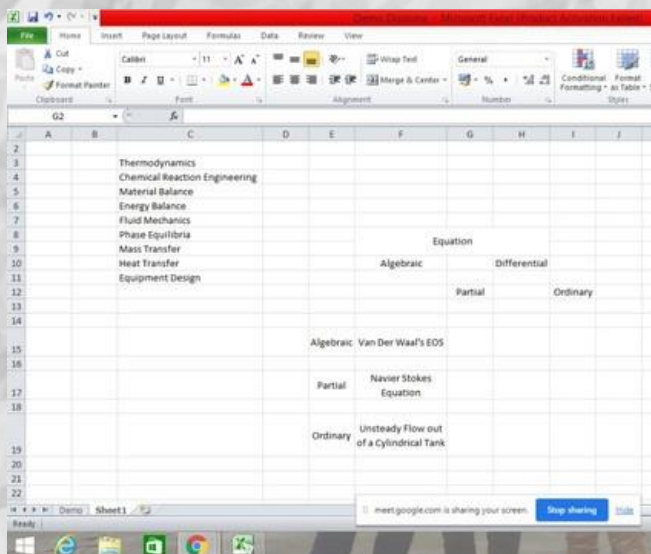
	5	6	7
Mock Test			
Result Analysis			
Mock Test			
Result Analysis			

Chemical Engineers are not gentle people, they like high temperatures and high pressures.  
-Steve LeBlanc

# MS-EXCEL FOR CHEMICAL ENGINEERING DIPLOMA

**Date:26th August 2020**

A session on “MS-Excel for Computation” was organized by Chemical Engineering Department of Silver Oak University on 26th August 2020 for the student of 3rd semester diploma through “GOOGLE MEET”. The session was conducted by Mr. Nishit Shah. He explained students various types of operation and the computation techniques used in the MS-Excel. He provided a hand on experience to the students and solve a numerical problem for more enhanced and comprehensive learning. The session was concluded with an Assignment give to the students for a practice. The session was very useful to the students as they learned something new which would be beneficial to them in future. They gained lot of knowledge out of the session.



Research is to see what everybody else sees, and to think what nobody else has thought.  
-Albert Szent-Gyergyi

# ENGINEERING DAY CELEBRATION

**Date: 15th September,2020.**

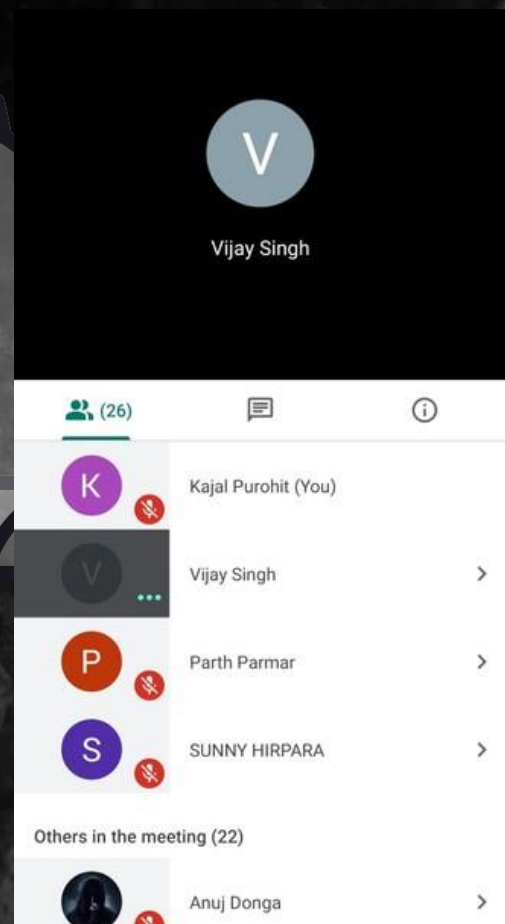
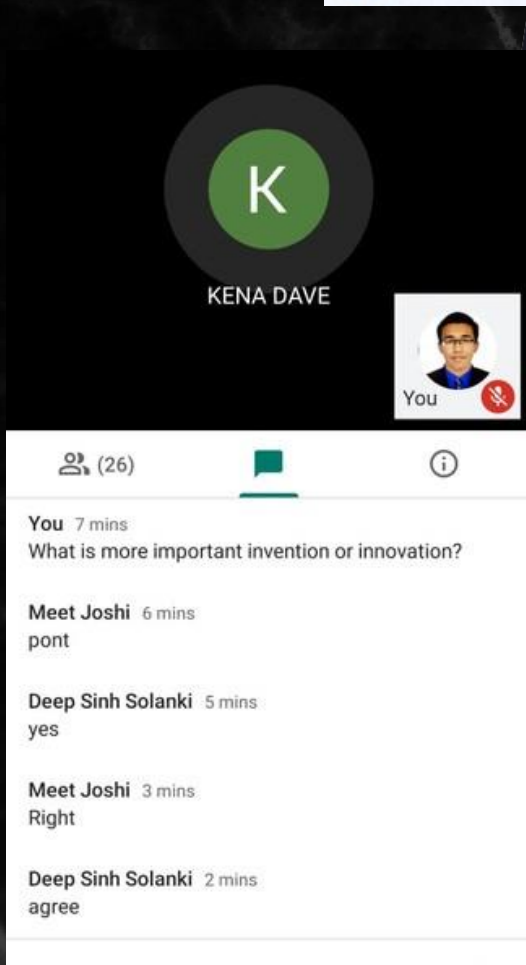
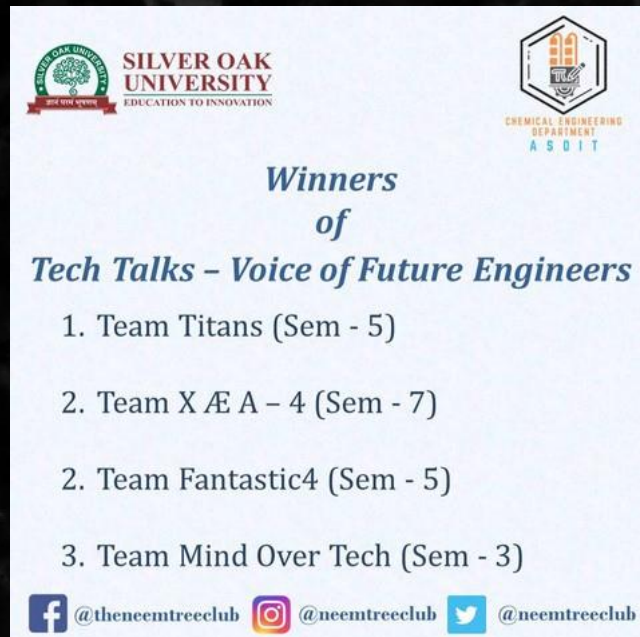
National Engineers Day is celebrated on 15th September to appreciate the contributions of Mokshagundam Visvesvaraya, an eminent engineer. He has been awarded with Bharat Ratna. He was born on September 15, 1861 which is celebrated as Engineers Day in whole country. To celebrate this day Chemical Engineering Department of Silver Oak University organized “Tech Talks – voice of Future Engineers” technical discussion for 3rd, 5th and 7th semester degree and 3rd semester diploma students on 15th September 2020 on Google Meet platform. The session was conducted by Mr. Nishit Shah, Neem tree club co-ordinator. Total 44 students took part in the activity in a group of 4 each. The Technical discussion was divided in two rounds. 1st Round was held from 11:00am to 1:00pm. In 1st Round a common topic “New Education Policy” was given to all the teams and they were asked to present their views in either FOR or AGAINST the given topic and time limit was 10min for each team. 2nd Round started at 1:45pm to 3:45pm. In 2nd Round each team were asked to pick up a number from 1 to 11 and topics were given corresponding to the selected number. The topics were as follows:

- Which one is more important? Creativity or Knowledge.
- What is more Important? Invention or Innovation.
- Smart work vs Hard Work.
- Is it really worthy to become a cashless economy?
- Impact of Social media on youth.
- Is dependence on the internet good thing?
- E-learning: A substitute for classroom learning.
- Does technology get in the way of studying or does it help?
- Should there be a dress code in colleges or at workplaces?
- Are degrees necessary for being successful?
- Can computers Replace teachers?

**Nothing in life is to be feared. It is only to be understood.**

**-Marie Curie**

The activity was very interactive and students also participated very actively. The main aim of the activity was to improve thinking, listening and speaking skills.



Think like a proton and stay positive.

-Sk Verma

# OFFLINE AND ONLINE PRACTICAL SESSIONS

## • OFFLINE SESSIONS: -

**DAY AND DATE: - Tuesday, 20th October 2020 to Thursday 29th October 2020.**

The offline practical lab sessions for chemical engineering students was conducted for 9 days that is from 20th October 2020 to 29th October 2020, by following all the necessary guidelines under the current pandemic covid-19. There were total 33 students who sent the positive response and were ready to attend the offline practical sessions, out of which 5 students were from 3rd semester diploma, 23 from 5th semester degree, and 5 from 7th semester degree. After the response from the students, all of them were divided into 2 batches each. Out of 23 students from 5th semester 11 were selected in batch-1 whereas others were selected in batch-2, all of them were divided by keeping in mind the areas from which they come. All the norms and rules were properly followed by the students as well as faculties, like compulsory use of hand sanitizers, to wear masks, not to roam in campus unnecessarily, provided an undertaking consent form to the students which was supposed to be signed by them. Also, the accommodation for the students who wanted to attend the offline lectures and living in remote areas was provided.

**The triumph of engineering skills rest on a chemical foundation.**

**-Horace G. Deming**

Offline practical sessions hence were conducted and also were successful. Students literally were able to understand all the practical and core engineering concepts, they also learnt about the machines which are used in various chemical industries. Concepts were clearer to the students after attending offline practical sessions than in online practical sessions. They were confident and ready to operate the different machines and various methods of operating, and working of machines were clear.

### **ONLINE SESSIONS:-**

Various online practical sessions were also conducted for students of chemical engineering program, they were conducted through the mode of google meet. Various machines were shown and explained to the students by showing them live on video lectures. The principle, working and construction were explained to the students provided with the readings of the experiments. Though everything was shown and explained well in online lab sessions students still preferred and clearer through offline mode of conducting labs and lectures.



**Everything we call real is made of things that cannot be regarded as real.**

**-Neil Bohr**



Though both the modes had it's pros and cons, the topics were clear in both and students got the idea of various core and important subjects of chemical engineering, however the offline mode was more likely to be understood and attend by the students of the chemical engineering programming.

**Nothing is lost, nothing is created, everything is transformed.**

**-Antoine Lavoisier**

# HINDI DIWAS CELEBRATION

## Tilism-E-Hindi

**Day & date: Monday, 14th September 2020**

Being one of the most diversified nation in the world. India is a place where numerous traditions, customs, religions and languages flourish. And among all the languages, Hindi is considered as the chief as well as the widely spoken in India.

Hindi got an exalted status in India on September 14, 1949. Since then, 14 September is celebrated as Hindi Diwas to pay tribute to the official language of India. Today, Hindi is considered as Rashtra Bhasha. In today's commercialized environment, where people are forgetting their roots, Hindi Diwas plays a significant role. The celebration of Hindi Diwas stands as a patriotic reminder to Indian population of their common roots and unity.

To make this occasion exalted, Neem Tree Club, Chemical engineering department, SOU, organized an event to promote and propagate the use of our national language. Many students participated and apprised importance of Hindi language. They come up with their excellent thoughts and messages, many essays and speech on various topics like Importance of Hindi language and its prosperity, Advancement of Hindi language, fading Hindi language in lifestyle....



**SILVER OAK UNIVERSITY**  
EDUCATION TO INNOVATION

हिंदी हमारी पहचान, हमारा गर्व...  
Chemical Engineering Department  
presents  
**तिलिस्म - ऐ - हिंदी**  
On the occasion of the upcoming Hindi Diwas

<b>Event Categories</b>	<b>Result Declaration</b>
1. Speech	14 <sup>th</sup> September, 2020
2. Essay	Hindi Diwas

हिन्दी हमारे राष्ट्र की अभिव्यक्ति का सरलतम स्रोत है।  
~ Sumitranandan Pant



**SILVER OAK UNIVERSITY**  
EDUCATION TO INNOVATION

**तिलिस्म - ऐ - हिंदी**  
Topics of the Event

1. हिंदी भाषा का महत्व एवं समृद्धि
2. हिंदी भाषा की उन्नति
3. जीवन शैली से लुप्त होती हिंदी भाषा

Essay / Speech needs to be submitted before **12<sup>th</sup> September, 2020 11:59 PM.**  
For Queries Contact: Bhoomi Vora: +91 6353172012

**Scientists believe in things, not in person.**

**-Marie Curie**



Winner students were Jay Bhambaniya, Kena Dave and Mit Prajapati gave their excellent performance in promoting and highlighting the significance of the language connecting the citizens of India with each other.

Hindi is the oldest and influential language in the world and this rich language is the base of many other languages too. We should take pride of speaking our mothertongue.

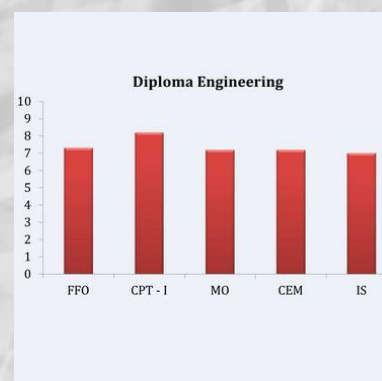
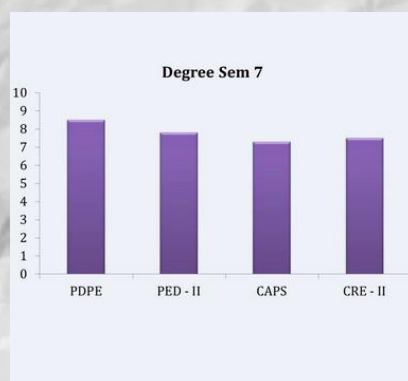
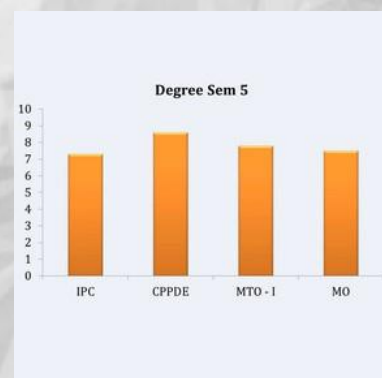
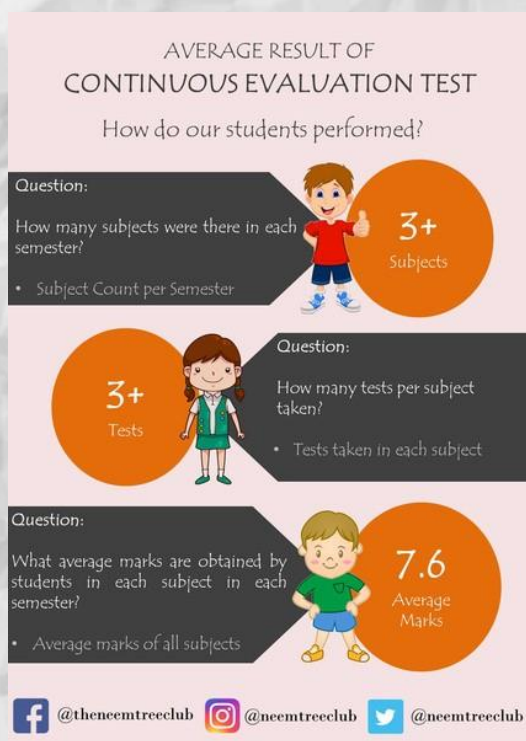
**In the middle of difficulties, lies an opportunity.**  
**-Albert Einstein**

# CONTINUOUS EVALUATION TEST

**Date : 14 September 2020**

The Continuous improvement Assessment for 3rd, 5th and 7th Semester of diploma students. It was organized by chemical engineering department on 14th September 2020. The continuous evaluation test (CET) is conducted on CLASS MAKER platform every week. The main aim of assessment is to develop the learning of students.

Department scheduled assessment tests every week to improve academics results of students. Due to this remarkable progress was observed in results and learning of students. CET was very helpful for the students from examination point also.



**The expert in anything was once a beginner.**

# GATE MOCK TESTS

**Date: 21st August & 12th September, 2020.**

GATE MOCK TESTS were arranged by Chemical Engineering Department of Silver Oak University for pre-final year and final year students. The tests were conducted on the Canvas platform to check the outcome of the preparation done by the students which leads them towards improvement. On 21st August mock test was arranged for Chemical Engineering Thermodynamics (CET) and on 12th September mock test was arranged for Fluid flow operation (FFO) and Process Calculations (PC). From the results, students came to know about the areas where they were lacking, where they need to concentrate and need to practice more. Which would be very helpful to students in excelling in GATE. Gate Club of the department is planning to arrange more such rounds of mock tests of core subjects which will be very fruitful to students and leads to increment in their results and knowledge as well.

**SILVER OAK UNIVERSITY**  
EDUCATION TO INNOVATION

**CHEMICAL ENGINEERING DEPARTMENT**  
ASOIT

## GATE 2021

**Mock Test for GATE 2021 Aspirants**

*Only For the students of Final & Pre - Final Year of Chemical Engineering*



Arranged by: Chemical Engineering Department

Subject: Chemical Engineering Thermodynamics

Date & Day: 21<sup>st</sup> August, 2020 (Friday)

Mode of Exam: Online

Timings: Available on Friday Only

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**SILVER OAK UNIVERSITY**  
EDUCATION TO INNOVATION

**CHEMICAL ENGINEERING DEPARTMENT**  
ASOIT

## GATE 2021

**Mock Test for GATE 2021 Aspirants**

*Only For the students of Final & Pre - Final Year of Chemical Engineering*




Arranged by: Chemical Engineering Department

Subject: **Process Calculation, Fluid Flow Operation**

Date & Day: 12<sup>th</sup> September, 2020 (Saturday)

Mode of Exam: Online

Timings: Available on Saturday Only

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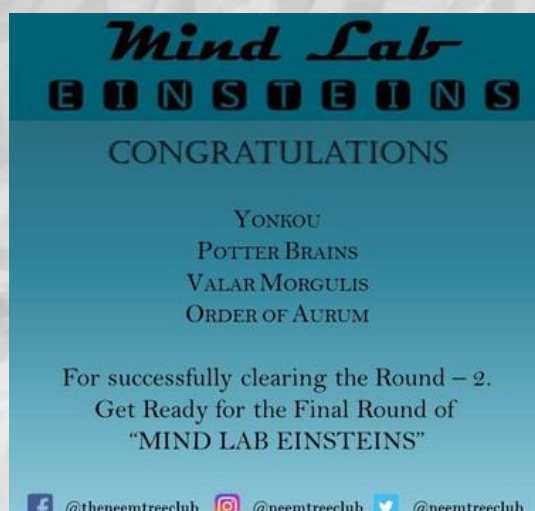
**“The best way to get started is to quit talking and begin doing.”**  
– Walt Disney

# MIND LAB EINSTEINS

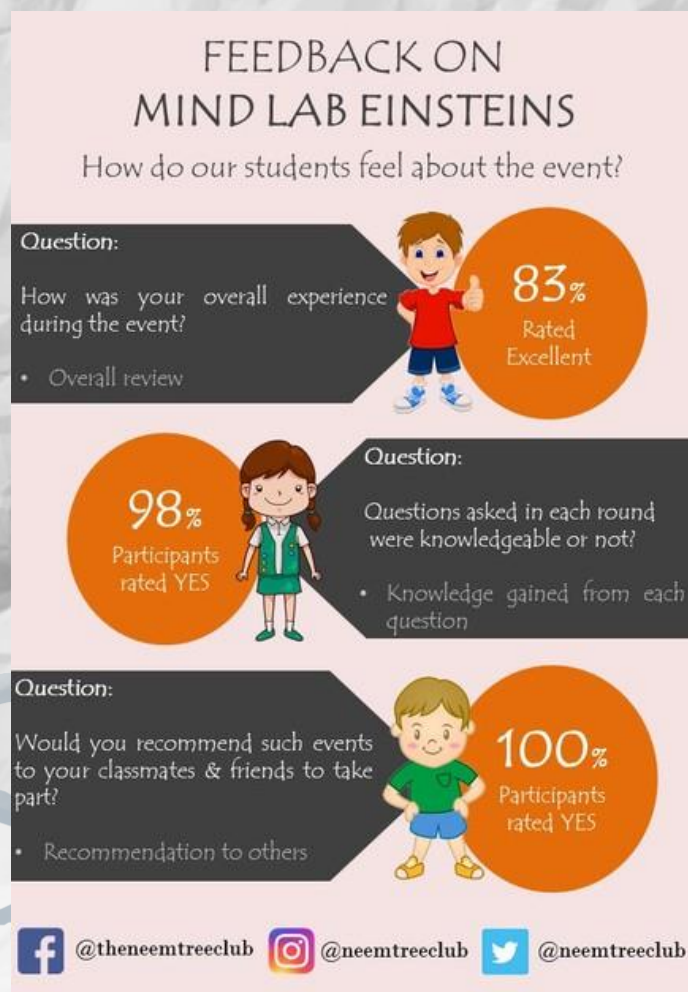
**DATE : 27TH JULY 2020 to 30TH JULY 2020**

The “MIND LAB EINSTEINS-QUIZ COMPETITION” For 3RD,5TH semester degree and 3rd semester diploma students was organized by Chemical Engineering Department under NEEM TREE CLUB on 27th July, 2020 through Google Meet Platform. The quiz was organized and was conducted using the application KAHOOT! The session was conducted by Mr. Nishit Shah, Neem Tree Club Co-Ordinator of Chemical Engineering Department. Round-1 was “SCREENING ROUND” and it was an individual participation round. The concept of the questions framed in this round were of “basic chemistry (general chemistry)” used in our daily lives.

Round-2 was “FIGHT TO THE FINALS”, it was organized on 30th July 2020. This was a team round with 4 members in each team. The concept of the questions asked in this round were based totally on “Chemical Engineering” study, they connected to the curriculum and course of core engineering subjects which developed the understanding and depth of the subject. Also, the team comprised with the students belonging to all the four semesters i.e. 3rd diploma, 3rd degree, 5th degree and 7th degree. The main motive behind such kind of team formation was to inspire students to work with good coordination in a team.



**Sometimes later becomes never. Do it now.**



Round-3 was “FINALS”, it was conducted on 31st July,2020. In this round, only 5 teams were selected. The concept of questions asked in finals round were of “Industrial level” knowledge and engineering questions. The intention of the event was to improve knowledge and thinking level of students. Also, to make students aware and inspire them to work in a team, also the students actively participated in the event. The event was very much interactive and the participants not only learnt about the right answers of the questions but also, they learnt communication skills, time-management, team work and leadership skills as well. Students enjoyed and learnt a lot from this quiz competition

**Success doesn't just find you. You have to go out and get it.**

# DOUBT CLEARING SESSIONS

**Day & Date: 28 August and 29 August, 2020**




During this pandemic situation, our lives were likely stopped but learning never stops, as many things are practicing virtually. We are learning and enhancing our knowledge that how we can easily perform our work from online mode also. The faculties gave their best in conveying the knowledge through online platform. Apart from these not only teaching is enough but to clear doubt and to be interactive is also important for one's learning.

Faculties from Chemical Engineering Department of Silver Oak University did an appreciable work by not only showering the students from best knowledge, theories and calculations in well-mannered and easiest way but also give preference to the students doubts to be solved. They scheduled a doubt clearing session on 28th & 29th August 2020 for preparation of examination. The session was kept for all the subjects and faculties solved each and every queries of students. Though exams were conducted from online platform, still concepts should be cleared and well known.

The Schedule of Upcoming Doubt Solving Session for the Degree 3<sup>rd</sup> Sem Students:

 Friday & Saturday  12:00 PM Onwards

Day	Time	Subject	Faculty
Friday	12:00 PM to 12:30 PM	CET - I	Mr. Vijay Singh
	12:30 PM to 1:00 PM	FFO	
	1:00 PM to 1:30 PM	MEBC	Mr. Mohammad Imran
	1:30 PM to 2:00 PM	AC	
Saturday	12:00 PM to 12:30 PM	CET - I	Mr. Vijay Singh
	12:30 PM to 1:00 PM	FFO	
	1:00 PM to 1:30 PM	MEBC	Mr. Mohammad Imran
	1:30 PM to 2:00 PM	AC	

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The Schedule of Upcoming Doubt Solving Session for the Degree 5<sup>th</sup> Sem Students:

 Friday & Saturday  12:00 PM Onwards




Day	Time	Subject	Faculty
Friday	12:00 PM to 12:30 PM	MO	Ms. Kajal Purohit
	12:30 PM to 1:00 PM	CPPDE	
	1:00 PM to 1:30 PM	ET	Mr. Vijay Singh
	2:00 PM to 2:30 PM	IPC	
	2:30 PM to 3:00 PM	MTD - I	Mr. Mohammad Imran
	12:00 PM to 12:30 PM	MO	
Saturday	12:30 PM to 1:00 PM	CPPDE	Ms. Kajal Purohit
	1:00 PM to 1:30 PM	ET	
	2:00 PM to 2:30 PM	IPC	Mr. Vijay Singh
	2:30 PM to 3:00 PM	MTD - I	

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The Schedule of Upcoming Doubt Solving Session for the Diploma 3<sup>rd</sup> Sem Students:

 Friday & Saturday  12:00 PM Onwards

Day	Time	Subject	Faculty
Friday	12:00 PM to 12:30 PM	FFO	Mr. Nishit Shah
	12:30 PM to 1:00 PM	MO	
	1:00 PM to 1:30 PM	CPT - I	Ms. Kajal Purohit
	2:00 PM to 2:30 PM	IS	
	2:30 PM to 3:00 PM	CEM	Ms. Kajal Purohit
	12:00 PM to 12:30 PM	FFO	
Saturday	12:30 PM to 1:00 PM	MO	Mr. Nishit Shah
	1:00 PM to 1:30 PM	CPT - I	
	2:00 PM to 2:30 PM	IS	Ms. Kajal Purohit
	2:30 PM to 3:00 PM	CEM	

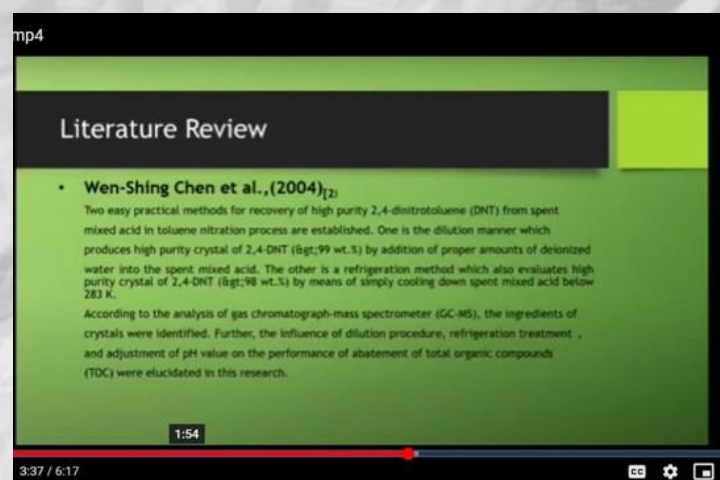
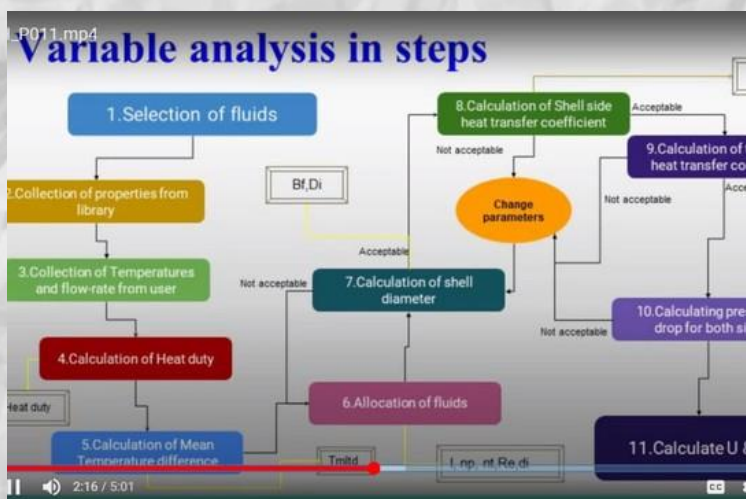
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**Don't stop when you're tired. Stop when you're done.**

# INNOVATIVE PROJECT REVIEW

Date: 9th September, 2020 & 21st  
October, 2020.

Project review is a very important aspect of Engineering for Final year students. During such crucial pandemic times where everything has gone virtual and offline evaluation of projects weren't possible, Chemical Engineering Department of Silver Oak University came up with "E- Project Review". The Project Review was arranged for the Final year students of 7th Semester. Under which they prepared and submitted a video presenting their project idea on Google Drive. And complete evaluation of projects was done by the faculties. This activity ensured that such situations will not hamper the future and education of the students. Also, students gained knowledge and confidence



Wake up with determination. Go to bed with satisfaction.

# PBL REVIEW

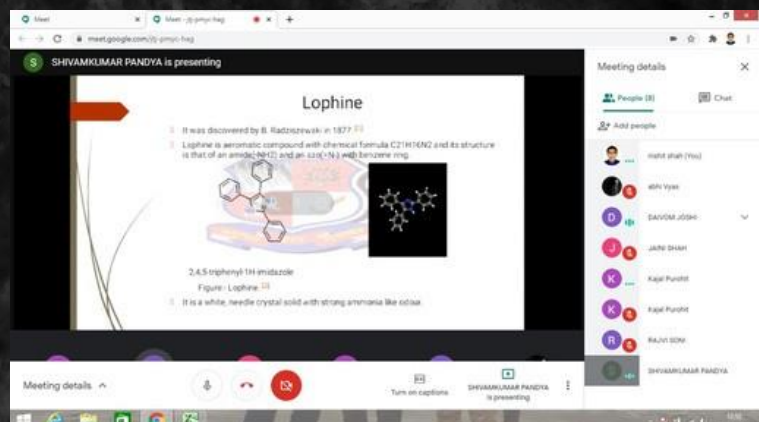
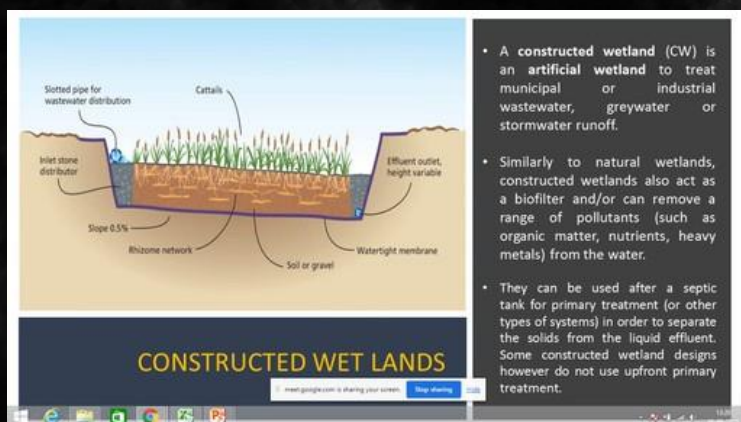
Date: 20th

August, 2020 & 30th September, 2020.

The PBL (Problem Based Learning), is a project which helps students to solve and understand the practical problems and fundamental concepts of engineering. This year due to the pandemic it wasn't possible to conduct the PBL offline So, the first PBL of the semester was conducted on 26th of August, 2020 on google meet platform, tentatively at 12pm, for 3rd and 5th semester students. The main aim of PBL-1 was to guide and help student to research their topics thoroughly and how to approach for their future research in their project work. Then for the further progress in the project of the students, PBL-2 was conducted on 30th September, 2020. The PBL-2 started tentatively at 10:30 am.

Both the reviews were divided into total 2 panels. Each group in the Panel was provided 15 minutes duration for presenting their presentation (Project review). After the presentation by the students there was a question-answer session, in which the questions related to the project were asked by the GUIDES.

The overall progress, research in future work and the detailed study of the projects was the main aim of PBL-2. The grades provided to the students in PBL are on the basis of their project selection, project report, presentation skills, good team-work, and answering the questions. PBL (Problem Based Learning) holds an important part in the overall curriculum and academics of the students. Also, the genuine reviews and appreciation by the guides for the work done by students is equally important, thereby developing the leadership, communication skills and team-work skills as well.



It's going to be hard, but hard does not mean impossible.

# INTERVIEW FOR NEWLETTER TEAM

Date: 11th July,2020.

“Neutralize”- Newsletter of Chemical Engineering Department of Silver Oak University publishes its issue every 4 months. The Newsletter is completely drafted by students under the guidance of faculties. There is whole separate team formed for this under which the work is divided among different departments like – Writing Department, Editing Department and Content Department. Students are allotted and they work according to their departments which makes the whole flow much easier and brings great output. So, for the new recruitments in the team an Interview was taken on 11th July,2020 for the interested students. Interview was conducted by Faculties and Senior team members. Students were asked basic questions related to editing, writing or content and through this their capability and knowledge was judged. Selected students were included in the existing Neutralize Team and were made to understand the entire work flow.



CONGRATULATIONS

AVANI RAVAL  
BHUMIK RATHOD  
ANUJ DONGA  
SHLOK RAVAL

For clearing the interview process and to be a part of editorial board of Chemical Engineering Department's Magazine "NEUTRALIZE"

 @theneemtreeclub  @neemtreeclub  @neemtreeclub



Interview for selection of editorial board of Chemical Engineering Department's Magazine "NEUTRALIZE" has been scheduled on 11<sup>th</sup> July, 2020.

Interested students contact respective Class Representative.

 Neem Tree Club  @neemtreeclub

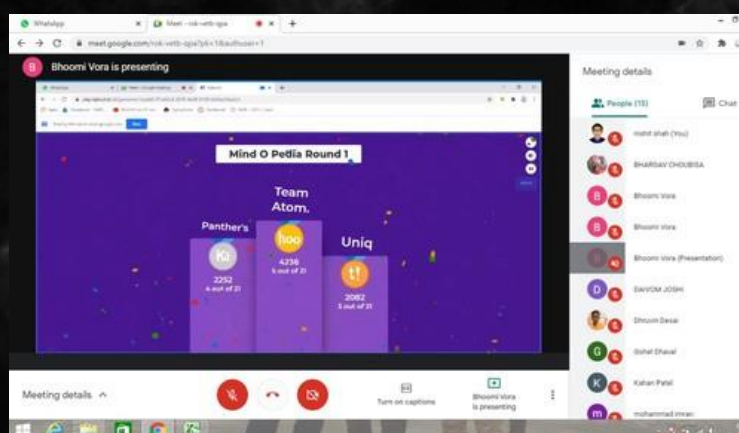
**"It's hard to beat a person who never gives up."**  
– Babe Ruth

# E-TALAASH2020

Date: 27th and 28th  
October, 2020.

Talaash 2020 the technical fest of this year was organised first time on an online platform, due to pandemic situation. The event was conducted for two days that is on 27th and 28th, October 2020. There were various departmental level events in it. Also, in chemical programming (CHEM O-CAL), there were two events namely MIND-O-PEDIA AND WHAT-IF? Both the events were organised under the leadership of faculties and coordinated with the team of students. MIND-O-PEDIA was a quiz competition, it comprised of total 3 rounds and in total, 10 teams and more than 40 students participated in it. The event started at 10 am and round 1 and 2 were conducted on the same day. Whereas round 3 was conducted on 28th of October 2020. The event was conducted on Google Meet (online) platform and kahoot respectively.

WHAT-IF? This event was a kind of Case-Analysis study in which participants were provided different cases to study and solve them in the given time. A team with two participants will be given a Situation or hypothetical condition, everyone has to think what could be outcomes. Participants have to answer through google form. There were more than 50 participants in the events with their teams. Both the events conducted smoothly and successfully. Also, the participants enjoyed the events.



**“Do what you feel in your heart to be right – for you’ll be criticized anyway.”— Eleanor Roosevelt**

# SHAKTIRAJ JOULES EXPERIMENT

Shaktirajsinh Vaghela a student from 3rdSem diploma degree of Chemical Engineering Department of Silver Oak University made a homemade project of joules practical in this quarantine period of Covid-19. The project was made to explain that how joules converted mechanical energy in to heat energy. As you can see in the video, a cylindrical shape plastic bottle is kept as insulated water container and a stick with pedal is at a center of insulated water container for rotating the water and doing mechanical work inside the container. A mass is hanged on the other side which displaces according to the work and measure the amount of heat produced during the process. He surely set an example on how productive one can be in this pandemic time staying at home. Kudos to his efforts.



**“The same boiling water that softens the potato hardens the egg. It’s what you’re made of. Not the circumstances.”**

# WORDS OF WISDOM



**Patel Nistha**

**2<sup>nd</sup> Year, Diploma**

Engineering was something which I would have never thought choosing as a career in my life, I used to think that It is something which I'll never be able to understand well. But then I thought why not to challenge myself and improve my weakness as my strength so I decided to choose chemical Engineering. Then eventually with the help of my faculties, I started getting things easily. I discovered various ways for enhancing my skills of organic chemistry & Maths which previously seems like impossible for me to understand. Last but not the least, my words of wisdom are **"Every weakness contains within itself a strength."**



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**"Hold the vision, trust the process."**

## Words of Wisdom



**Shivam Pandya**  
**3<sup>rd</sup> Year**

Before choosing engineering as my career, I had a great interest in organic chemistry. To bloom this seed of my knowledge, I pursued my studies in Chemical engineering. After enrolling myself into chemical engineering course, I came to learn logical reasoning and mathematical ability. Also while studying, I achieved good interest in Thermodynamics. What I realised is that one should sharpen their experiences with the help of practical knowledge rather than only bookish knowledge. At the end, The Words of Wisdom from my side is **"Following your passions and dreams can achieve you greater success in life."**



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**"Don't be afraid to give up the good to go for the great."  
– John D. Rockefeller**

# NEWS

- Elon Musk has unveiled a pig called Gertrude with a coin-sized computer chip in her brain to demonstrate his ambitious plans to create a working brain-to-machine interface.
  - "It's kind of like a Fitbit in your skull with tiny wires," the billionaire entrepreneur said on a webcast . His start-up Neuralink applied to launch human trials last year.
  - The interface could allow people with neurological conditions to control phones or computers with their mind.
- such chips could eventually be used to help cure conditions such as dementia, Parkinson's disease and spinal cord injuries.
- Convalescent plasma, which can neutralise antibodies and immunomodulators in the fight against viral diseases, does not help in reduction of mortality or progression to severe COVID-19, a study conducted by Indian Council of Medical Research has found. The study has been published by medRxiv and has not been peer reviewed. This means that they are preliminary reports

**"Greatness only comes before hustle in the dictionary."**

**– Ross Simmonds**

It was Phase II of the randomised controlled trial in which 39 public and private hospitals across 14 states in 25 cities participated between April 22 and July 14. Of the 464 participants, 235 were in the intervention arm and 229 in the control arm. Two doses of 200 ml plasma were transfused 24 hours apart in the intervention arm. Those in the control arm were given 'best standard care' without the plasma.

- In a clinical trial, participants who are not given the experimental intervention being studied are in the control arm. The trial was registered with Clinical Trial Registry of India in April.
- In plasma therapy, plasma from recovered COVID-19 patients is used to establish antibodies against SARS-CoV-2 virus into the body of the patient to fight it. For several years, convalescent plasma has been used to fight viral diseases such as poliomyelitis, measles, mumps and influenza in the pre-vaccine era and more recently, during the Influenza and Ebola epidemics.

**Don't be pushed around by the fears in your mind. Be led by the dreams in your heart -Roy T. Bennett**

# Neutralize Quiz Questions

Q1. Preferred conditions for spontaneity in nature are

- (A) Low enthalpy and low entropy
- (B) High enthalpy and low entropy
- (C) High enthalpy and high entropy
- (D) Low enthalpy and high entropy**

Q2. Both the lattice energy ( $\Delta U_0$ ) and hydration enthalpy ( $\Delta H_h$ ) of a binary salt are negative quantities. However, if  $\Delta U_0$  is more negative than  $\Delta H_h$

- (A) The salt will not dissolve in water
- (C) Dissolution of salt in water is exothermic
- (B) Salt will dissolve in water
- (D) Dissolution of salt in water is endothermic**

Q3. The peroxide effect occurs by:

- (A) Ionic mechanism
- (B) Heterolytic fission of double bond
- (C) Homolytic fission of double bond
- (D) Free radical mechanism**

Q4. Some Meta – directing substitutes in aromatic substitution are given. Which one is most deactivating?

- (A)  $-\text{SO}_3\text{H}$
- (B)  $-\text{COOH}$
- (C)  $\text{NO}_2$**
- (D)  $-\text{C}\equiv\text{N}$

Q5. The pair of bases in DNA are held together by

- (A) Hydrogen bonds**
- (B) Ionic bonds
- (C) Phosphate groups
- (D) Deoxyribose groups

Q6. The critical temperature of water is higher than that of  $\text{O}_2$  because  $\text{H}_2\text{O}$  molecule has

- (A) Fewer electron than  $\text{O}_2$
- (B) Two covalent bonds
- (C) V-shape
- (D) H-bonding**

Q7. A pyro acid cannot be formed by

- (A)  $\text{HClO}_4$**
- (B)  $\text{H}_2\text{SO}_4$
- (C)  $\text{H}_3\text{PO}_4$
- (D)  $\text{H}_3\text{BO}_3$



Q8. Which of the following are not the characteristic of chemisorption

**(A) Multilayer adsorption**

(B) Exothermic nature

(C) Strong adsorption by adsorption sites

(D) Irreversible

Q9. The biomolecule which does not have a secondary structure is

(A) Protein

**(B) Lipid**

(C) DNA

(D) RNA

Q9. Reversible binding of oxygen occurs through

**(A) Fe**

(B) Cu

(C) Mg

(D) Ca

Q10. Which of the following alkene cannot give 3-methylpentane on hydrogenation

(A) 3-methylpent-1-ene

(B) 3-methylpent-2-ene

**(C) 2-methylpent-1-ene**

(D) 2-ethylbut-1-ene

Q11. In a nucleophilic substitution reaction, the least reactive compound is

(A)  $\text{CH}_3\text{CH}_2\text{Cl}$

(B)  $(\text{CH}_3)_3\text{CCl}$

**(C)  $\text{CH}_2=\text{CHCl}$**

(D)  $\text{CH}_2=\text{CHCH}_2\text{Cl}$

Q12. Van Arkel method of purification of metals involves converting the metal to a

(A) Volatile compound

**(B) Volatile unstable compound**

(C) Non-volatile stable compound

(D) Non-volatile unstable compound

Q13. Identify the state function among the following

(A)  $q$

(B)  $q-w$

(C)  $q/w$

**(D)  $q+w$**

Q14. Which of the following is most stable?

**(A) 2,3-Dimethyl-1,2-butene**

(B) 2-Butene

(C) 2-Methyl-1,2-butene

(D) 1-Butene



Q15. The diagonal relationship of elements in the periodic table arises because of similarity in

- (A) Ionic radius
- (B) Electronic configuration
- (C) Crystal structure

**(D) Radius ratio of the corresponding ions**

Q16. Which of the following does not contribute to water pollution?

- (A) Pathogens
- (B) Organic waste
- (C) Chemical pollutant

**(D) None**

Q17. The crystal of NaCl, which has sodium ion and chloride ions missing from the lattice point, is said to exhibit

- (A) Surface defect
- (B) Lattice defect
- (C) Frenkel defect

**(D) Schottky defect**



# TEAM NEUTRALIZE

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