



Outstanding Institutions Award (Engineering College Category) year 2020-21



techFEST'21

27+ | **4 LAKH+** | **22+**
EVENTS | CASH PRIZE | YEAR OLD FEST

FLASHBACK 2021

*Proud to be part of Team SLIET
Together We Can Make a Difference*



SLIET AWARDED “OUTSTANDING INSTITUTE AWARD (ENGINEERING COLLEGE CATEGORY) FOR THE YEAR 2020-21



SLIET Longowal has been adjudged the “Outstanding Institute Award (Engineering College Category) for the year 2020-21”, constituted by “NITTTR Chandigarh for northern region states”. The award was conferred on the occasion of 54th Annual Day Celebration of NITTTR, Chandigarh, on 7th Sept 2021.

Prof. Shailendra Jain, Director SLIET, congratulated TEAM SLIET on this achievement.

and emphasized on the belief that the “Strength of TEAM is each individual member, and the strength of each individual is the TEAM”.

STUDENT'S SEATING ARENA INAUGURATED BY DIRECTOR SLIET

The Student's Seating Arena is developed in front of the library, which is one of the key areas of student's movement. The arena has boards for the display of important institutional information, and sitting places for students. The same was inaugurated by Prof Shailendra Jain, Director SLIET Longowal on 11th Aug 2021. The arena is developed with an objective to display important information at a central place, and attract students towards Central Library facilities. On this occasion he appreciated the efforts of Estate Team for their efforts of value-addition to institute infrastructure.

KALADARPAN: AN ONLINE CULTURAL FEST

The students of the Degree-20 batch took the initiative and organized a cultural event, “KALADARPAN,” online to provide a platform to the students to showcase their talent and spread positivity among the SLIET family in these difficult times. The preparation of the event started with registration of students through a Google form, where 204 students registered themselves, in which 72 students registered themselves as a



participant, out of which 40 of them participated actively (9 in singing, 1 in dancing, 6 in poetry, 5 in painting, 2 in drama, 4 in photography, 2 in comedy act, 4 in shayri, 7 students in a cartoon story) and 132 as the audience. This event was organized under the patronage of Director SLIET, Prof. Shailendra Jain along with Prof. DC Saxena, Dean (SW) as co-patron and Mr. Sarbjeet Singh, AP (ECE), Ms. Preetpal Kaur Buttar, AP (CSE), and Mr. Jagdeep Singh, AP (CSE) acting as faculty advisors and Abhigyan Prashar (GEC20) along with Siddharth Tiwari (GEC20) as Student coordinator. This event was organized in a two days span, on May 22-23, 2021.

The event was live-streamed on the YouTube platform through the official channel of “KALADARPAN,” having 290 subscribers. The first day of “KALADARPAN” began with “DEEP PRAJAWALAN” and then “Saraswati Vandana”, followed by the welcome song. Prof. Shailendra Jain, Director SLIET, and Prof. DC Saxena, Dean (SW), congratulated the team members for their initiative and encouraged their valuable thoughts. The first day’s events included singing, dancing, poetry, cartoon-story, among others which was watched live by 250 (Peak view) people, and after day 1, views went up to 2.5K, and it is 2.7K views till now. On the second day, the students showcase their talent through events such as photography, sketch art, drama, comedy, painting, etc. The second day of the event gained 200 peak views in YouTube live streaming, and it is going to touch 1K views.



In the end, Prof. Shailendra Jain, Director SLIET, congratulated the faculty advisors and the organizing team members for the successful organization of the event. The two-day event ended with the vote of thanks from the faculty advisors, followed by the “NATIONAL ANTHEM.”

Throughout the program on both days, the audiences were engaged through voting for their favorite performances. On that basis, top performers were selected, and accordingly the certificates have been provided to all participants, volunteers, and winners.



MADHURAM'21, THE ANNUAL CULTURAL FEST OF SLIET

Madhuram'21(Annual cultural Festival of SLIET) powered by Internwelland associate partner R.R.P Jewelers, Sangrur was inaugurated virtually ,keeping in view COVID-19 pandemic, in presence of the Honorable Director of SLIET, Prof.Shailendra Jain, Respected Dean Student Welfare,- Prof. D.C Saxena, Dean Academics Dr. AjatSattu Arora, Convener of virtual



MADHURAM'21 Prof. Sukhcharan Singh, Co-convenor Dr. Prathiba Tyagi, on 12th of July 2021 at 11:00 A.M. The program was live streamed on the official YouTube channel (Madhuram SLIET) and the official website. <http://madhuramsliet.in> and it had great number of views.

In the august presence of Director SLIET Prof. Shailendra Jain, the Day-1 of Madhuram'21 was a grand success with more than 2000 spectators along with many other dignitaries in the symposium including Dean(Faculty & Staff welfare), Dr.J.S. Dhillon , Dean (R&C) Prof.A.S. Dhaliwal , Dean (Planning & Development), Prof.P.S. Panesar. There were exciting high energy performances by students including dancing & poetry. The same way Day-2 was followed by the grand face-off among students from singing to storytelling in presence of honorable judges and audience.

It was a great pleasure for the entire team of virtual Madhuram '21 to have Shivam Sharma from Lafz Entertainment , Singer Nikhil Sharma from Lafz Entertainment and India's most popular band "Ruhaniyat Band" as honorable guests during star nights for Day-3, Day-4 and Day-5 respectively.

Day-3 and day-4 witnessed the same thrill and concluded with a star night and MR. and MISS Madhuram'21 super exciting competitions respectively.

The Day-5 was dedicated to pay a tribute to our late Prof. Damanjeet Singh and it later drew the curtains down for virtual Madhuram'21 with prize distributions, cash prizes, and goodies for the winners of various events.

“A HEALTHY SLIET CAMPAIGN – LET’S REJUVENATE TOGETHER”

In March of 2021, India saw a sudden surge in the number of fresh COVID cases and declared the onset of the second wave of the pandemic. When things just started getting better, colleges planned on reopening, and students saw a glimpse of hope of meeting each other in-person, the second wave brought in an unprecedented amount of stress and anxiety. All hopes were crushed. People rummaged for supplies and desperately searched for help. Meanwhile, students of InternWell Club dropped a proposal to organize a 25 day campaign – A Healthy SLIET campaign, aimed at reducing pandemic induced stress and anxiety that has been building up among students and faculty of SLIET. The campaign soon received over 600 registrations and this motivated the organizers to let everyone make the most of the program.



The program flagged off with an exciting fun filled orientation session which was graced by the presence of Dr. Shailendra Jain, Director – SLIET and Prof D C Saxena, Dean (SW). It was attended by over 300 students and teachers. Each day was better than the other with over 10 mentors conducting multiple sessions such as Physical fitness awareness, Mental Health build-ups, fun activity sessions, student-teacher interactions, open personal talks and meditation sessions. The entire program was free-of-cost for everyone.

The structure of the program involved regular sessions of 1 – 1.5 hours each day in the evening after classes were finished. In each session, one HOD was invited as a chief guest to share their experience and ideas with students. The sessions were organized over zoom meetings.

What seemed like an admirable show from the audience was actually the result of consistent efforts by a group of students from the InternWell Club team including Sachin Korla, Ayush Thakur, Raghvendra, Suyash, Smriti, Soham and Vaibhav under the guidance of Prof Ajat Shatru Arora, Faculty Advisor Internwell SLIET .



Day-to-day follow ups, encouraging fellow students, assisting and coordinating during sessions, creating beautiful advertisements, developing interesting activities and schedules that fit all were just a few of the hectic tasks that the team did to make the campaign a huge success.

The program helped students develop a sense of awareness about their mental and physical health. Students learned something “new and exciting” each day according to their feedback. The amazing campaign witnessed its closing ceremony on 12/06/21. Mr. Sanjay Mishra – An innovator and recipient of two NASA awards, IIT, Roorkee Alumnus – from USA presented a talk on “Mastering Tough Times”. The talk was followed by goodies distribution such as Bluetooth Speakers, Amazon Vouchers, etc. for active and best performing participants.

“All good things reach ends that lead to new beginnings.”

The session hosts were Yogi Ranjit Singh- International Yog Guru, World record holder in yoga, Miss. Suchi – Founder of Conscious for You, Meditation Coach, Yash Tiwari – International Youth Mentor, Author , Mental Health Activist, Shalmali Jadhav – Founder of Empathy for you, Mental Health Expert, Vikas Gautam – Faculty of Art of Living, Shivam Maury – Founder of Whatever it takes, Fitness Coach, Prof. Manoj Sachan – HOD CSE SLIET, Meditation Coach, Dr. Indraj AsP (ME) SLIET, Meditation Coach, Abin Greens – Fitness Expert, Sagar Rai – Founder of KIBI Sports, Sanjay Mishra – Entrepreneur from USA, recipient of NASA achievement Award.

FEEDBACK OF PARTICIPANTS

I will miss these sessions. Fun quiz was what I liked the most. Meditation also felt great. These sessions increased my confidence as one day I even sang. Thank you so much. Hope sessions like these will also come again in the future.

- *Rahul Agarwal (Degree 1st year)*

It was a nice session from team InternWell. I really enjoyed it. Just keep doing the same. Putting great efforts. Really nice to see.

- *Abhishek Mishra (Degree 3rd year)*

It was a great evening, feeling glad to be a part of this Healthy SLIET.

- *Ayushi Raj (Degree 1st Year)*

Thank you Healthy SLIET for giving me the opportunity to show my talent.

- *Abhigyan Prashar (Degree 1st Year)*



The time when Arora sir told us so many things, that time was really awesome for me. Yoga & meditation sessions were awesome and other sessions were also good.

- Shivangi Samrat (Diploma 1st year)

Healthy SLIET is a great initiative in this Pandemic.

- Yogesh Kumar (Degree 2nd year)

If health and fun had a face, it will be healthy SLIET.

- Ved Parkash (Degree 1st Year)

Healthy SLIET brings a smile on our face every day!!!

- Tanu Shakya (Degree 1st Year)

The Healthy SLIET Daily session was the Best time of the whole boring day.

- Khushi (ICD 3rd Year)

SWACHHTA PAKHWADA

SLIET observed SWACHHTAPAKHWADA 2021 as per directions of the Ministry of Education, Govt. of India. Various activities were organized by the institute from 8-14 Sept. 2021 in and off campus through online as well as offline mode. Director, SLIET inaugurated the activities under Swachhta Pakhwada 2021 on 8th Oct. 2021 in presence of Prof. Rajesh Kumar, Dean(SW) and Coordinators Prof. S.M. Ahuja & Dr. Gulshan Kumar Jawa with Swachhta Pledge Ceremony (ONILNE MODE). The students, faculty and staff of the institute actively participated in the pledge ceremony in the phased manner. Various activities were undertaken include 'Innovation Projects (Presentations)', 'Debate Competition', 'Slogan Writing and Poster Making Competitions', 'Clean Your Neighbourhood', 'Potting Plants/ Saplings', 'Water Conservation Drive', and 'No Water Stagnation to Avoid Breeding of Mosquitoes'. A large no. of students participated in above activities through online mode and 'at & around' their homes despite the challenges of COVID-19 pandemic. Through remarkable participation of students guided by faculty members, awareness has increased among masses related to water conservation, waste recycling, energy conservation and Cleanliness and health etc.



NBA APPROVED THE ACCREDITATION STATUS OF ALL THE UG (BE) PROGRAMS OF SLIET, FOR A PERIOD OF 3 YEARS



Accreditation is a process of quality assurance and improvement, whereby a programme continues to meet the prescribed Norms and Standards. It is a kind of recognition which indicates that a programme or Institution fulfills certain standards. To ensure the same, the Institute has undergone the NBA Accreditation process of 4 Year Bachelor of Engineering (BE)

Programs since 2014. It was the 4th cycle of NBA Accreditation (3rd for FET, CSE, ECE and EIE, and 1st for EE).

The Self-Assessment Reports (SARs) were submitted to the NBA in the month of Dec 2019 along with proposed visit schedules in the year 2020. However, due to Covid-19 pandemic, the NBA expert team could not visit the Institute. The visit dates were proposed afresh to which NBA agreed to undertake the visit during April 2021.

A team of National Board of Accreditation (NBA), consisting of 11 members visited SLIET Longowal, from 9-11 April 2021, for the accreditation of all 7 BE Programs. The team included three local external experts (visiting experts), who visited the Institute physically, and seven external subject experts (01 for each UG program) and Chairman of the committee were available through online mode. During the initial two days, the experts critically analysed the academic, administrative records and physical facilities available at the institute and the departmental level through online mode, with the help of local external experts. The institute made special arrangements for online interactions with faculty, staff, students and their parents, alumni and employers as part of this visit. During the Exit Meeting, held on 11.04.2021, the Institute has opted to continue with the NBA approval for all the seven UG programs.

This is an attempt by the institute to impart Outcome Based Education (OBE) and to achieve desirable outcomes (in terms of knowledge, skills, attitudes and behaviour) at the end of a program. It is a matter of great pleasure and celebration that the National Board of Accreditation (NBA) approved the Accreditation status of all the UG (BE) Programs of SLIET, for a period of 3 years.

WEBINAR ON “INDIA’S STRUGGLE FOR FREEDOM”



A webinar was organised on “India’s Struggle for Freedom” to celebrate the 75 years of Independence on 27/04/2021. Dr. Kashmir Dhankar and Dr. P.K.Jain presented the talk on “India’s struggle for Freedom” . A large section of faculty, staff and students attended the webinar. The event was coordinated by Sh. Asim Ali Khan, Associate professor

(EIE), SLIET.

A quiz was organised on India Struggle for Freedom on 28/05/2021. A total of 458 students have participated. Harsh Sharma of GEE was declared winner with Shivam Kumar and Arpan Kusum on 2nd and 3rd position.

INTERACTIVE TALK ON PSYCHOLOGICAL RESILIENCE

An interactive talk on PSYCHOLOGICAL RESILIENCE was organised in SLIET through virtual mode on 05 May 2021. Mrs. Sherrain Rattan & Mrs. Harpreet Kaur (Psychological Counsellors) addressed the audience in this event. Many students and faculty members have participated in the talk in online mode. The event was coordinated by Prof. Anuppama Marwah, (ECE).

INTERACTIVE TALK ON RESILIENCE

An interactive talk on RESILIENCE was organised in SLIET through virtual mode on 02 May 2021. Many students and faculty members have participated in the talk in online mode. The event was coordinated by Prof. Anuppama Marwah, (ECE). Mrs. Sherrain Rattan & Mrs. Harpreet Kaur (Psychological Counsellors) addressed the audience in this event.

ATAL FDP PROGRAM ON RECENT TRENDS IN PRECISION AGRICULTURE

Department of Electronics and Communication Engg. and the Department of Electrical and Instrumentation Engg of Sant Longowal Institute of Engineering and Technology (SLIET), Longowal (Deemed to be University), organized a 5-Days ATAL FDP program on "Recent Trends in Precision Agriculture " from 31st May 2021 to 4th June 2021, sponsored by the All-India Council for Technical Education (AICTE), New Delhi. The program was attended by 147 participants from various parts of the country. Experts from ICAR, IARI, Punjab University, Punjab Agriculture University, C-DAC Mohali, and IIT, Roorkee delivered their expert talks in the program. Coordinators of the program were Prof. Dilip Kumar (ECE) and Dr. Ashwani Kumar AsP (EIE).



NATIONAL WEB SERIES ON NEP 2020- NORTH INDIA'S PLENARY SESSION



AWS (Amazon Web Services) in association with IEEE-Prakash Bharati (consortium of IEEE Photonics Society Chapters of India) on 16th April 2021, powered the 1st Premier Virtual Event of National Web Series on NEP 2020: North India's Plenary Session to discuss the various Policy measures undertaken by the government under the National Education Policy 2020.

Ms. Vini Mahajan, Hon'ble Chief Secretary, Government of Punjab was the Chief Guest and inaugurated this Premier Virtual Panel Discussion on North India's Plenary Session. Dr. Naresh Chand FIEEE- the Associate Vice President of Chapter Relations, IEEE Photonics Society, USA was the Guest of Honour. This premier event was technically sponsored by IEEE (Institute of Electrical and Electronics Engineers) Region 10, which happens to be the world's largest technical professional organization for the advancement of technology and IEEE Region 10 Educational Activities Committee and organized by iGEN Edu Solutions India.

UNNAT BHARAT ABHIYAN (UBA) CELL EVENTS



As a part of a special initiative to spread some positivity during the depressing time of lockdown, UBA Cell of SLIET with the assistance of Ministry of Social Justice and Empowerment (Government of India), and Artificial Limbs Manufacturing Corporation of India (ALIMCO), organised a camp for the persons with disabilities at the Longowal village. In this initiative, 219 people with various types of disabilities were benefited with rehabilitation equipment aids including tricycles, hearing machines, artificial limbs, walking sticks and wheelchairs. In addition to this, Unnat Bharat Abhiyan Cell of SLIET Longowal, under the leadership of Director Prof. Shailendra Kumar Jain, UBA Coordinator Prof. Pardeep Kumar Jain and Co-coordinator Dr Manoj Goyal, took special initiatives for its seven adopted villages (Sheron, Lohakhera, Jharon, Killa bharian, Namol, Duggan and Badrukhan) during COVID-19 Lockdown period as well as two more villages nearby – Longowal and Bahadarpur. Most of the activities were performed around Longowal because of the Lockdown and few other adjoining adopted villages. An appreciation certificate was issued to SLIET Longowal for UBA by NITTTT, Chandigarh.

ONLINE QUIZ COMPETITION ON THE TOPIC OF HVAC (HEATING, VENTILATION AND AIR CONDITIONING)

An online quiz competition on the topic of HVAC (Heating, Ventilation and Air Conditioning) was conducted by the Department of Mechanical Engineering on 14th July 2021. The purpose of the quiz competition was to enhance students' knowledge in the field of HVAC. The coordinators of the event were Mrs. Ankita Omer (A.P.) and Mr. Sumit Kumar (A.P.). More than 100 students participated in the quiz. The competition consisted of a series of 5 online quizzes, which were conducted at different times on 14th July 2021.

Three winners were announced based on cumulative timing and marks scored by the participant. First position was secured by Mr. Ram Kumar from GME first year. Second position was secured by Miss. Pankhuri Gupta ICD-CEN final year. Mr. Gaurav Kumar, from ICD-CAC second year secured third position in the competition.

"FUSION 360"- ONE DAY WORKSHOP JOINTLY ORGANIZED BY SLIET AND AUTODESK

"Fusion 360" a one day workshop was jointly organized by SLIET Longowal and Autodesk on 7th August 2021. More than 50 participants participated including faculty members, B.Tech, M.Tech and PhD students. FUSION 360 software by AUTODESK installation was provided to all participants free of cost. The workshop was completely free and students and faculty members gave very positive feedback. Dr. Harish Arya, AP(ME), SLIET, Vyomkesh Mishra and Prashant Kundnani, AUTODESK coordinated the event.



ONE-WEEK ONLINE SELF-SPONSORED STC ON ROBOTICS AND AUTOMATION



Dr. Sunil Kumar organized a one-week online self-sponsored STC on Robotics and Automation-2021, during July 26-30, 2021. Basics of Robotics and Automation were discussed along with 40% practical demonstration. A total 106 Participant including Faculty, Scholars and Students attended the STP. The participants were enlightened with knowledge of Robotics and Automation as there is indispensable need for industrial automation to defend Industry 4.0.

WORKSHOP ON ENHANCEMENT OF COMPUTER SKILL (LEVEL-I)

A workshop on Enhancement of Computer Skill (Level-I) for Office/ Ministerial staff was conducted by the Department of Computer Science Engineering, SLIET, Longowal on 8- 22 June 2021. The workshop was inaugurated by Honorable Director SLIET, Prof. Shailendra Jain. The Workshop was coordinated by Dr. Tajinder Singh Assistant Professor (CSE) and Dr. Rishabh Verma Assistant Professor (EIE). Session expert talk was given by Dr. Sunil Kumar Assistant Professor (ME), Er. Jagdeep Singh Assistant Professor (CSE), and Dr. Yogesh Verma Assistant Professor (ME). Approximately 80 (Eighty) participants joined this workshop to enhance their skill.



WORKSHOP ON 'LEARNING SOFT SKILLS FOR ACADEMIC GROWTH: A BEGINNERS' PROGRAM'

Communication Skills and Personality Development Cell, SLIET, Longowal organised Two Days Workshop on "Learning Soft Skills for Academic Growth: A Beginners' Program" during May 8-9, 2021 for students of Integrated Certificate Diploma Program with an aim to ignite their minds and inculcate soft skills for improvement and growth in their academic performance during their academic study. The objectives and inclusion of the workshop were focused upon Goal setting, monitoring and analysis; Discipline and positive attitude for goal achievement; Life skills and Keys to success. The workshop was conducted by Mr. Sandeep Punj, UPTIK Consulting LLP, Mohali and Dr. Gulshan Kumar Jawa, Associate prof., Chemical Engg., SLIET. 150 students from all branches of ICD Programs have attended the workshop and gone through the activities. Prof. Shailendra Jain, Director, SLIET inaugurated the workshop with the inspiring words for motivating students to acquire soft skills for augmenting their technical skills for a successful career. Prof. A S Arora, Dean (Academic), SLIET had graced the event with his benign presence and words of motivation and appreciation to student participants and CSPD Cell for organising the workshop. The organising team of the workshop comprising Prof. Dhiraj Sud & Prof. Japreet Kaur Bhangu, Coordinators, CSPD Cell and Dr. Gulshan Kumar Jawa, Coordinator of workshop also appreciated the active participation of students.

SWAYAM AWARENESS WORKSHOP



As a part of online learning, a SWAYAM Awareness Workshop was held for the faculty of SLIET Longowal on 23rd August, 2021 at Mini Auditorium, Computer Block, SLIET Longowal, Punjab. It was inaugurated by Director of SLIET Longowal, Prof. (Dr.) Shailendra Jain, and an overview of the workshop delivered by Dean (Academics) Prof. (Dr.) J. S. Dhillon. The Head of Department of EIE Prof. (Dr.) Surita Maini., welcomed all the participants of the work

shop The workshop was conducted by the SWAYAM SLIET Coordinator Dr. Manpreet Singh Manna by giving brief review of all the salient features as well as complete overview of SWAYAM platform.



techFEST'21, SLIET LONGOWAL



First time in the history of SLIET, amidst the pandemic situation, the well-recognized institution, Sant Longowal Institute of Engineering and Technology in Sangrur conducted an annual virtual technical fest held from 1st September to 4th September 2021. The theme of the event was Revitalizing India drawing light on India's healthcare

system and the role technology plays in day to day life by having 34 events in 8 domains and a dedicated one for workshops and virtual industrial visits. The motive of the theme was inculcated in the problem statements of the flagship events of the techfest. Comprehending 1300+ participants from 45 different institutions from all over India, possessing eight wide domains incorporating 34 events and 17 assorted workshops. Bearing in mind the current situation, the virtual fest, techFEST'21 celebrated the power of technology. The sponsors of the event were DIYguru and Techvanto Academy. The Chief Guest of the inaugural ceremony which was held on 01/09/21 was Dr. Parin Somani - An Independent Academic Scholar. The Guest of honor of the Valedictory ceremony which was held on 04/09/21 was Simarpreet Singh, Director of Hartek Group. The fest provided the future of India a platform to cope up successfully with real-life challenges. techFEST'21 being a great success, planned and executed in such a short time span is a victory taken up by SLIETians. The perseverance and diligence of faculty, students, and all the collaborators paid off. It was a big opportunity to explore more in technical terms. Various skills were demonstrated by the students and the partakers seamlessly adapted to the online methodologies of sagacious judgment and competition thus proving that they are well versed with technologies and can easily adapt to all the set of circumstances. The fest came up with a vision of the candescent future of juvenescent India.



Summary:

Inaugural Ceremony was held on - 01/09/21 in which the guest of honour was Dr. Parin Somani - Independent Academic Scholar

A total of 34 events were organized in 8 domains and a domain was dedicated to workshops making the total domains equal to 9

Total no. of Students Participated: 1900+

No. of students participated from SLIET: 1300+

No. of students participated from other institutions: 120+

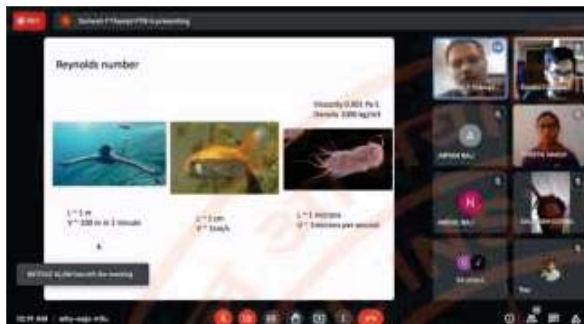
No. of Institutions participated: 45

The valedictory ceremony was held on 04/09/21 in which the guest of honour was Mr. Simarpreet singh - Director Hartek

Significant Outcome:

techFEST'21 was a set of challenges taken up by SLIETians. For the first time, a virtual techFEST was organized in SLIET that too within the shortest span of time as compared to previous techFESTs. The theme of techFEST'21 - Revitalizing India was inculcated in the problem statements of the flagship events of techFEST. Students actively took part in workshops and learned the benefits of various online tools and services such as LinkedIn, Freelancing websites, etc. that are available for their use. Students also demonstrated various skills and seamlessly adapted to the online methodologies of judgement and competitions thus proving that they are well versed with technology and can easily adapt to the given set of circumstances.

IICHE LECTURE SERIES: AN INITIATIVE BY THE IICHE STUDENT CHAPTER - SLIET



Starting from October 23, 2021, the IICHe Student Chapter - SLIET has been organizing a (virtual) lecture series, titled "IICHe Lecture Series", under the aegis of the chapter. The focus of this lecture series has primarily been to introduce the chemical engineering (and related disciplines) undergraduate students at various institutions (including SLIET) to some of the many

facets of chemical engineering and allied fields by inviting a variety of frontier academic and industrial professionals to give a talk on their areas of research and expertise. With passing time, the organizing committee decided to extend the audience to students pursuing their masters, PhD, or postdoctoral research in chemical engineering (and related disciplines). Numerous invited faculties at the chemical engineering, mechanical engineering, and physics department of various prestigious institutions have also actively participated in the talks.

The inaugural talk of the lecture series was held on October 23, 2021, and was delivered by Prof. Chirodeep Bakli, assistant professor at the School of Energy Science and Engineering, IIT Kharagpur.

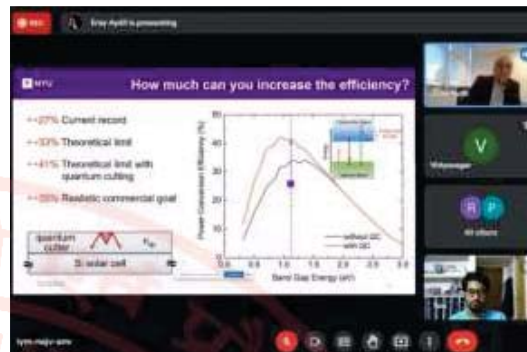
The topic of his talk was "The Duality of Contact Angle and Wettability: Towards Smart Surfaces". In the talk, Prof. Bakli made the audience revisit a well-known paradox that challenged Hercules in the 1970s to sink a ship in the water, and thereby traced how in the following decades the concepts of wettability and contact angle got altered. The audience witnessed how calculus might fail to model the transition from molecular scales to macroscopic scales and how the new tools being developed under the umbrella of nanofluidics and interfacial phenomena help in bridging this gap. The talk concluded with a tour of various applications of interfacial phenomena and fluid flow under confinements, developing smart surfaces being one of its many applications.



The second talk was held on November 6, 2021, and was delivered by Prof. Sumesh P Thampi, associate professor at the Department of Chemical Engineering, IIT Madras. The topic of the talk was “Hydrodynamics of Active Particles in Microchannels”. In the talk, Prof. Thampi elaborated on how active particles that continuously convert the available energy from surroundings into mechanical motion has been an emerging and fascinating research area, and how they serve as models for several biological systems spanning a spectrum of length scales. He concluded by acknowledging his research group members who have been pivotal in contributing to some of his recent research works in this area.

This third talk was held on November 26, 2021, and was delivered by Prof. Yunus A. Çengel, professor emeritus of Mechanical Engineering, University of Nevada, Reno. The topic of his talk was “Ramifications of the Innovations in Material Science on Energy Systems”. In the talk, Prof. Cengel gave the audience an insight into how developments of new technologies in material science often constitute cross-cutting technologies. He explained the importance of AI and innovative materials as cross-cutting and enabling technologies, and how the integration of AI into the existing technologies would prove to be a key step in the future. He wrapped up by describing the qualities that a new-age engineer must possess.

The fourth and final talk of the autumn semester (of 2021) was held on December 3, 2021, and was delivered by Prof. Eray S. Aydil, Alstadt Lord Mark Professor of Chemical and Biomolecular Engineering at Tandon School of Engineering, New York University. The topic of his talk was “Quantum Cutting with Rare-Earth Doped Halide Perovskites”, and was based on one of his recent works with Minh N. Tran and Iver J. Cleveland. In the talk, Prof. Aydil explained how a layer of a quantum cutting material on a silicon solar cell proves to be a low-cost approach to increasing solar cell efficiencies. He showed how converting each ultraviolet (UV) and blue photon to two near-infrared (NIR) photons via quantum cutting before the light enters a silicon solar cell can increase their power conversion efficiencies beyond the Quessier limit (33%) to greater than 40%. He wrapped up by stating that his research group has recently been able to increase the Si solar cell efficiencies to greater than 80% by using a material that doesn't contain Pb.



The United States doesn't have an official language.

The Longest Word You can Type With Just Your Left Hand is "Sweater-dresses"

Honeybees can flap their wings 200 times per second.

DO YOU KNOW?

Dentistry is the oldest profession in the world.

The world's quietest room is located at Microsoft's headquarters in Washington state.

All giant pandas in zoos around the world are on loan from China.

A snail can sleep for three years at a time.