



DEPTH has been promoting Physics and  
Technology since its inception.

## DEPTH Retrospective

An ensemble of events since  
2019.

---

## Online seminar on "Road Map for EP students in the field of Electronics & Electrical" 4th July 2021

- The online seminar on "Road Map for EP students in the field of Electronics & Electrical" was held on 4th July 2021 from 10:00 AM to 12:00 PM via Zoom.
- The seminar was organized by the DelTech Physics and Technology Hub (DEPTH), DTU University and was attended by more than 100 EP students from various batches and branches.
- The seminar aimed to provide guidance and insights to the EP students who are interested in pursuing a career or higher studies in the field of Electronics & Electrical.
- The seminar featured four eminent speakers from the industry and academia, who shared their experiences and expertise on various topics related to Electronics & Electrical engineering.
- The topics covered in the seminar were:
  - Introduction to Electronics & Electrical engineering: scope, challenges and opportunities
  - Emerging trends and technologies in Electronics & Electrical engineering: artificial intelligence, internet of things, renewable energy, etc.
  - Skills and competencies required for Electronics & Electrical engineers: technical, soft and professional skills
  - Career paths and options for Electronics & Electrical engineers: industry, research, entrepreneurship, etc.
- The seminar also included an interactive Q&A session where the participants asked various questions to the speakers and received valuable feedback and advice.
- The feedback from the participants was positive and appreciative. They expressed their gratitude to the organizers and speakers for conducting such a useful and informative seminar.

## “EP preparation Series” series of lectures by graduating batch 21 in the field of research in physics, electronics, competitive exams, tech, and non-tech placements.

Summer 2021

The EP preparation Series was a series of lectures organized by the graduating batch 21 of the Department of Physics and Electronics in summer 2021. The aim of the series was to share their experiences and insights in the field of research in physics, electronics, competitive exams, tech, and non-tech placements. The series covered topics such as quantum computing, nanotechnology, GATE preparation, coding skills, resume building, interview tips, and more. The lectures were delivered online via Zoom and were attended by students and faculty members from various colleges and universities. The feedback from the participants was positive and appreciative. The series was a successful initiative that showcased the talent and knowledge of the graduating batch 21 and helped the aspiring students to prepare for their future endeavours.

## Online seminar on “Higher studies in physics especially the GATE exams” by DTU Alumnus Piyush Raj and Chandan, Currently at IIT Delhi 2nd September 2021

On 2nd September 2021, an online seminar on “Higher studies in physics especially the GATE exams” was organized by the Department of Applied Physics, Delhi Technological University (DTU). The seminar was conducted by two DTU alumni, Piyush Raj and Chandan, who are currently pursuing their PhD in physics at IIT Delhi. The seminar aimed to provide guidance and motivation to the students who are interested in pursuing higher studies in physics and preparing for the GATE exams.

The seminar covered various topics such as the importance of GATE exams for admission to reputed institutes like IITs, IISc, and TIFR, the syllabus and pattern of the GATE physics exam, the preparation strategy and tips for cracking the exam, the scope and opportunities after qualifying the exam, and the experience and challenges faced by the speakers during their journey. The speakers also shared their insights on the research areas and projects they are working on at IIT Delhi. The seminar was followed by an interactive session where the speakers answered the queries and doubts of the students.

The seminar was attended by more than 100 students and faculty members from DTU and other colleges. The seminar was highly informative and beneficial for the students who aspire to pursue higher studies in physics. The seminar also inspired and encouraged the students to work hard and achieve their goals. The Department of Applied Physics, DTU thanked the speakers for their valuable time and contribution, and expressed its gratitude to all the participants for making the seminar a success.

## Online seminar series “How to get an internship”, covering all topics from research, technical, and electronics internships

July 2021 - Oct 2021

The online seminar series “How to get an internship” was a successful initiative that aimed to provide guidance and tips to students who are interested in pursuing internships in various fields. The series consisted of 12 sessions, each focusing on a different aspect of the internship process, such as finding opportunities, writing resumes and cover letters, preparing for interviews, and making the most of the experience. The speakers were

experts and professionals from different sectors, such as research, technical, and electronics. They shared their insights and advice based on their own internship journeys and current roles.

The seminar series attracted a large and diverse audience of students from different backgrounds, disciplines, and levels of study. The feedback from the participants was positive and encouraging. They appreciated the quality and relevance of the content, the interactive and engaging format of the sessions, and the opportunity to network and learn from the speakers and peers. The seminar series also helped to raise awareness and interest in the various internship opportunities available in different fields and industries.

The online seminar series “How to get an internship” was a valuable and informative resource for students who are looking for internships or planning their career paths. The series achieved its objectives of providing practical and useful information, inspiring and motivating students, and creating a supportive and collaborative community. The seminar series was a great example of how online learning can be effective and enjoyable.

## Online seminar “Getting started with research”

Dec 2021

The online seminar series “How to get an internship” was a successful initiative that aimed to provide guidance and tips to students who are interested in pursuing internships in various fields. The series consisted of 12 sessions, each focusing on a different aspect of the internship process, such as finding opportunities, writing resumes and cover letters, preparing for interviews, and making the most of the experience. The speakers were experts and professionals from different sectors, such as research, technical, and electronics. They shared their insights and advice based on their own internship journeys and current roles.

The seminar series attracted a large and diverse audience of students from different backgrounds, disciplines, and levels of study. The feedback from the participants was positive and encouraging. They appreciated the quality and relevance of the content, the interactive and engaging format of the sessions, and the opportunity to network and learn from the speakers and peers. The seminar series also helped to raise awareness and interest in the various internship opportunities available in different fields and industries.

The online seminar series “How to get an internship” was a valuable and informative resource for students who are looking for internships or planning their career paths. The series achieved its objectives of providing practical and useful information, inspiring and motivating students, and creating a supportive and collaborative community. The seminar series was a great example of how online learning can be effective and enjoyable.

## Online seminar on “Study abroad” DEPTH, DTU in collaboration with Mentor Capitals.

12th February 2022

The DelTech Physics and Technology Hub (DEPTH) at DTU organized an online seminar on “Study abroad” on 12th February 2022 in collaboration with Mentor Capitals, a leading education consultancy firm. The seminar aimed to provide information and guidance to the students who are interested in pursuing higher

studies or research in foreign universities. The seminar was attended by more than 200 students from various branches of engineering and science.

The seminar featured presentations by experts from Mentor Capitals on various aspects of studying abroad, such as choosing the right destination, finding scholarships and funding opportunities, preparing for standardized tests and applications, and adapting to the academic and cultural environment. The speakers also shared their personal experiences and tips on how to succeed in the global education scenario. The seminar also included a Q&A session where the students could interact with the speakers and get their queries answered.

The seminar was well-received by the students who expressed their appreciation and feedback. The seminar helped them to gain more clarity and confidence about their study abroad plans and aspirations. The DEPTH team thanked Mentor Capitals for their valuable collaboration and support in organizing the seminar. The team also announced that they would conduct more such seminars in the future on different topics related to physics and technology.

## PORTS CONCLAVE 3.0

Sports Conclave 3.0 was organized on 13<sup>th</sup> November 2022 by DEPTH and the Applied Physics Department. It was a three-day event that included various Sports Events namely, Cricket, Badminton, Table Tennis, and, Carrom. Participants were invited from the applied physics department and many faculty, Ph.D., M.Sc, and undergraduate students participated in the event. Participation was good in number and participants were really enjoying the conducted event.

### **VOLUNTEERS OF THE EVENT:**

Kanishk Tyagi, Naman Aggarwal, Hitesh Dureja, Naman Aggarwal

### **WINNERS:**

Cricket: 1st Position - Ph.D. team

2nd Position - Faculty team

### **PHOTOS:**







## Recruitments'23

This report is focused on the orientation of the college society DEPTH (Del-Tech Engineering Physics Technological Hub) that was held on 24th January, 2023. The orientation was organized to provide an overview of the society and its objectives to the interested students. This report discusses the details of the orientation, including the registration, awareness, speaker, high spirit, enthusiasm, and refreshments.

### REGISTRATION and AWARENESS

Prior to the event, a PR desk was set up near the AMUL shop, where interested students could register for the orientation. The desk was operational for two days, during which around 200 students from B Tech and MSC registered for the event. The registration showed the keen interest of the students in the society, indicating the potential success of the society.

Furthermore, the awareness campaign was successful in spreading the word about the orientation, and more students got to know about the society's existence and purpose.

### GUEST SPEAKER

MR. TEJHAS KAPOOR is a guest speaker who has a wealth of experience and knowledge in the field of physics. He is an alumnus of DTU, he completed his 1st year of Masters in General Physics at the Paris-Sud University, which has now become part of University Paris-Saclay. He then went on to specialize in High Energy Physics at Ecol Polytechnic during his 2nd year of Masters. Currently, he is pursuing a PhD at IJC Lab, which is a joint lab between CNRS/IN2P3 and University Paris-Saclay. Mr. Kapoor's research topic is focused on Phenomenology of Flavour Physics to search for beyond the Standard Model physics. His expertise and knowledge in this field make him an excellent guest speaker to share insights and valuable information about physics research with students, researchers, and the wider community.

### LECTURE

The orientation started with a welcoming and high spirit environment that immediately captured the attention of the attendees. The speaker of the event was Tejas sir, an alumnus of DTU, currently pursuing his PhD from IJC Lab (a joint lab between CNRS/IN2P3 and University Paris-Saclay). He delivered a lecture on PARTICLE, which elaborated some facts and showed the other side of viewing it.

Tejas sir's lecture was engaging and informative, providing the students with valuable insights into the world of physics. The lecture received positive feedback from the attendees, who found it to be exciting and thought-provoking.

### SOCIETY and PLATFORM

The orientation also discussed how the society provides a great platform for physics enthusiasts to interact with seniors and like-minded students. The society aims to promote the exchange of knowledge and ideas between students, enabling them to learn and grow together.

The orientation emphasized the society's commitment to providing guidance and support to its members, helping them to explore their potential and achieve their goals. This aspect of the society was well-received by the attendees, who expressed their enthusiasm for joining the society and becoming a part of its community.



## QNA and REFRESHMENTS

The orientation ended with a QNA session, where the attendees had the opportunity to ask questions and clarify their doubts. The session was interactive and lively, with the attendees showing a keen interest in learning more about the society and its activities. Finally, refreshments were provided to the attendees, adding a pleasant end to the induction. The refreshments allowed the attendees to network with each other and the organizers, creating a positive atmosphere of camaraderie and excitement.

## CONCLUSION

In conclusion, the orientation of the DEPTH, organised by Aviral Srivastava, was a resounding success, with around 200 students registering for the event and showing a keen interest in the society's objectives. The speaker Tejas sir's lecture on particle was exciting and informative, providing the attendees with valuable insights into the world of physics. The orientation highlighted the society's commitment to providing a platform for physics enthusiasts, enabling them to interact with seniors, like-minded students, and learn from each other. The QNA session and refreshments added to the excitement and enthusiasm of the attendees, creating a positive atmosphere of camaraderie and learning.

## INVICTUS'23

As the academic world starts to return to its usual functioning and objective, with colleges once again sprouting with students brimming with innovative ideas, ideas big enough to accelerate the world's development to another dimension.

Fortunately, in DTU we have DEPTH-DTU, the college's very own physics and technical research society providing the base and launch-pad for students with such revolutionary scientific ideas and encouraging them to test out and even flourish with their skills and ingenious ideas in technological and scientific fests all over the country.

One such fest was the college's own annual technical fest, INVICTUS'23, one of North-India's largest technical fest with students, teachers and researchers from every corner of the country coming in to present their own ideologies. The students at DEPTH were also in high-spirits to display their own scientific ideas and even organise various quizzes, hackathons and stalls based profuse themes related to STEM.

And as expected from a society of such vigour and endearment to science, the students at DEPTH gracefully managed to present their ideas in the fest and attract the attention from all types of people present. DEPTH had a multitude of ideas about the events they could have organised, but even DTU's innumerable campus buildings would not have been enough to house all the events at INVICTUS'23.

So, DEPTH decided upon organising events and installing stalls based on the best of the best of their ideas which included "LIGO/LI-EPO Booth", "The Demystification Quiz" and "The Astronomy Research Hackathon", all of which were attended dearly by the crowd and enjoyed even thoroughly by the participants. The events involved magical highlights and numerous memories that garnished the fest for DEPTH-DTU.

### The Demystification Quiz

"Part of being successful is asking questions and listening to answers".

~ Anne Burrell

The word 'Demystification' itself signifies the act of making something clearer and coherent, in this event this was the wonders of astronomy itself via a quiz conducted on 14<sup>th</sup> February, 2023 by Katyani Gupta, the content head at DEPTH. The quiz aimed at familiarizing students with basic concepts of astronomical sciences and provide them with a cosmic experience.

An intriguing Physics and Astronomy quiz where participants were asked several interesting questions based on astronomy and related disciplines. The quiz had two rounds and comprised several objective and short answer type questions. The latter round was a visual round that involved image identification. The quiz was an enormous success and thrilled students like never before and the same time adding upon their knowledge of the universe.

### THE LIGO/LI-EPO BOOTH

LIGO India, an educational public outreach, was invited to DTU for INVICTUS'23 by DEPTH-DTU to install a stall within the campus to demonstrate how the Laser Interferometer Gravitational-Wave Observatory actually operates using various models and how astronomical gravitational waves are being detected here and are being used as astronomical tools.

The LIGO Team consecutively conducted a workshop as well, which was interactive and involved lectures about the operation of LIGO and data analysis. The LIGO team constituted PhD students Swarnim Shirke and Dhruv Pathak from IUCAA Pune for the LIGO booth and PhD students Mukesh Kumar and Uddeepa Deka from ICTS Bangalore for the data analysis workshop.

### RESEARCH HACKATHON (ASTRONOMY)

“Remember your connection with the cosmos. Remember your connection with infinity, and that remembrance will give you freedom.” ~ Amit Ray

With plethora of the same old hackathons in the INVICTUS'23, DEPTH-DTU decided to spice things up a bit and presented the RESEARCH HACKATHON based on physics, astronomy and computation by Aviral Srivastava, the Events Head at DEPTH. The hackathon consisted of two rounds, the first was the qualifying round and the second being the research round wherein the teams were provided with a research question based on computational astronomy on the Python language whose solution was to be submitted after 48 hours of the question being given along with a presentation on 15<sup>th</sup> February, 2023. The winning team was rewarded with a cash prize of Rs. 10,000 along with an applause from one of the most prestigious physics society of the country, DEPTH-DTU. The spiced-up hackathon met its expectations and even went way beyond them.







## NATIONAL SCIENCE DAY-2023

Further DEPTH-DTU decided upon taking part in organising an “One Day National Seminar” on the occasion of National Science Day-2023 (28<sup>th</sup> February 2023) with the HRDC (Human Resource Development Centre), Institution Council (IIC-DTU) and the Department of Applied Physics at DTU in the Pragyan Hall within the university campus itself.

The event was embellished by presence and addressal by various distinguished and expert personalities and high-achievers who made the event all the more lively and informative. These included –

1. Prof. S. Anbu Kumar, Director HRDC-DTU
2. Prof. Vinod Singh, Associate Director, HRDC-DTU
3. Prof. A.S Rao, HOD Applied Physics, DTU
4. Prof. Madhusudan Singh, Registrar, DTU (Patron)
5. Prof. Jai Prakash Saini, Hon’ble Vice Chancellor, DTU (Chief Patron)
6. Sh. Shyam Lal Poonia, IAS, Deputy Secretary Ministry of Housing and Urban Affairs (MoHUA), Guest of Honour (GOI)
7. Prof. I.M Kapahy, Former Member UGC, Chief Guest on science and scientific spirit being the core of human well being
8. Prof. Pratibha Jolly, former principal at Miranada House as invited speaker on innovation, enterprise and education weaving paradigms for World of Work.

All these highly knowledgeable and deeply engrossing addressal were followed up by a National Science Day quiz organized by DEPTH-DTU under the guidance of the Department of Applied Physics. This was a Demystification Quiz which was to be participated in teams of either two or three members. The quiz provoked the interest of the students and garnished the Natinal Science Day for all of us.

