

# The Communiqué

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# An Institution of Excellence



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# Vision of the Chandigarh Engineering College-CGC, Landran, Mohali

To become a leading institute of the country for providing quality technical education in a research based environment for developing competent professionals and successful entrepreneurs.

# Mission of the Chandigarh Engineering College- CGC, Landran, Mohali

- 1. To provide state of the art infrastructure and engage proficient faculty for enhancing the teaching learning process to deliver quality education.
- **2.** To give a conducive environment for utilizing the research abilities to attain new learning for solving industrial problems and societal issues.
- **3.** To collaborate with prominent industries for establishing advanced labs and using their expertise to give contemporary industry exposure to the students and faculty.
- **4.** To cater opportunities for global exposure through association with foreign universities.
- **5.**To extend choice based career options for students in campus placements, entrepreneurship and higher studies through career development program.





(Prof.) Dr. Rajdeep Singh Director Principal Chandigarh Engineering College-CGC, Landran, Mohali

Dear Students, Faculty, and Staff

It gives me great pleasure to address you all through the pages of our college's quarterly magazine. Communique is a reflection of our college's commitment to excellence in both academics and extracurricular activities. It is also a testament to the strong sense of community that we share.

Our college is more than just an educational institution. It is a platform where aspirations are fostered, skills are developed, and destinies are crafted. Within these pages, we honour the essence of curiosity, innovation, and commitment that has become synonymous with our establishment.

I want to express my admiration for our outstanding faculty members who consistently dedicate themselves to sharing their expertise and insights. Their dedication to maintaining high academic standards and their enthusiasm for educating have played a crucial role in moulding the intellects of our students. To our students, I want to express my deep appreciation for your dedication to learning and your unwavering commitment to achieving your goals. Your accomplishments in academics, arts, sports, and various other areas reflect your dedication and perseverance. Lastly, I would like to express my gratitude to the editorial team and all those who contributed to the fabrication of this magazine. Their tireless efforts and unwavering commitment are truly commendable. This magazine highlights our cutting-edge ideas, strategic foresight, and steadfast dedication to achieving the highest standards.

My good wishes to all. Have a happy reading!



Dr. Harpal Singh Professor & Head, Applied Sciences Department

It gives me great pleasure to share my thoughts with all of you through the pages of our esteemed college magazine. The college magazine serves as a window to the vibrant and diverse academic life that thrives within our department.

As the Head of Department, I am constantly inspired by the dedication, creativity, and hard work of our students and faculty members. Our department has been a hub of intellectual curiosity and innovation, and I am proud to see the remarkable achievements and contributions that continue to shape the educational landscape here.

Along with extending a warm welcome to the new students of B.Tech first year, I also assure them that they will receive excellent guidance and academic support to turn their dreams into reality. Every member of the department is fully committed to excellence in teaching. In light of the current landscape of technical proficiency, we strive to equip and train our students to successfully navigate and overcome global challenges. I'm confident that the new students will find our campus and department to be exceptional and will appreciate the friendly atmosphere we provide for them. We strive to empower every student to transform themselves into a successful individual, ready to tackle the challenges of the world with unwavering confidence.

Wishing you all a stupendous accomplishment in Life!



#### From the Editor's Desk....

Dear Readers,

Welcome to the 29th edition of our college magazine. The process of curating this magazine has been a captivating adventure, brimming with ingenuity and a profound sense of accomplishment for our college community. Communique is a true reflection of the exceptional skills and unwavering commitment that exists within our college. It acts as a platform that captures the diverse and everchanging fabric of our campus life, highlighting the remarkable achievements, valuable contributions, and unforgettable experiences of our students and faculty.

Our college is a vibrant community of individuals with unique experiences, viewpoints, and skills, and this magazine showcases the power and collaboration that arises from our combined endeavours. From academic achievements and research breakthroughs to artistic expressions and community initiatives, the pages within capture the stories of our accomplishments and dreams. I would like to extend my heartfelt gratitude to all the contributors as it is your dedication that has breathed life into these pages, making this publication a true reflection of our college's spirit. Once again, through this magazine I would like to convey my thanks to all for their cooperation.

Wishing you all a Happy Reading!

Inderjot Kaur Editor

#### **RANKING & AWARDS 2023**

#### 1 Dataquest CMR Employability Index Survey 2023

- 10<sup>th</sup> Rank Overall among top 100 T Schools (Government and Private)
- 6<sup>th</sup> Rank Overall among top T Schools (Private)
- 5<sup>th</sup> Rank in North India in Top 10 Zone Wise Institutes (Government and Private)

#### 2 CSR-CHRDC Ranking 2023

- 12<sup>th</sup> Position in Top Emerging Colleges of Super Excellence
- 4<sup>th</sup> Position in Top Engineering Colleges in State of Punjab

#### 3 Outlook I-Care Rankings 2023-India's Best Colleges

- 59<sup>th</sup> among top 100 private institutes in India
- 4<sup>th</sup>private institute among Punjab including (University's Institutes)
- 1<sup>st</sup>private college in Punjab (excluding university's Institutes)

#### 4 NIRF Innovation 2023

CEC Positioned in the band of 51-100 in the Innovation Category

#### 5 Times of India Engineering Survey 2023

- 3<sup>rd</sup> in Research Capabilities
- 91th in Top 170 Private Institutes
- 88<sup>th</sup> in Top 125 private Engineering Institutes

#### 6 THE WEEK-Hansa Research Survey 2023

- 8<sup>th</sup> in private colleges North Zone
- 39<sup>th</sup> Rank in private Engineering colleges across the country
- 65<sup>th</sup> Rank in Engineering Colleges all over India

#### 7 NIRF Ranking 2023

• CEC-CGC landran has been ranked in 100-150 Band in Engineering Category

#### 8 India Today Ranking 2023

- 2<sup>nd</sup> Rank in Private Colleges in Punjab
- 4th Rank in Private Colleges and Universities in Punjab
- 61th Rank across country among Private Colleges
- 1st in Top Five Gainers among First 100 (Govt+Private)

#### 9 Dataquest Tech School survey, 2023

- 1st in Punjab in Top 100 T-Schools (Overall) Government and Private
- 1<sup>st</sup> in Punjab in Top T-Schools (Private)
- 15<sup>th</sup> rank in Top T-Schools (Private)
- 5<sup>th</sup> rank in North India (Zone Wise)
- 22<sup>nd</sup> rank in Top 100 T-Schools (Overall) Government and Private

#### 10 Patent Filing Rank

CGC Landran bestowed with 4<sup>th</sup> position Pan India among the Top 10 Patent filing Institutes and 3rd among the Top 5 in the field of Information Technology along with the IITs, other premium Institutions and IT Corporates in the country.

#### 11 MoE-AICTE

CEC-CGC, Landran, Mohali has received the highest 3.5-star rating by Institution Innovation Council of the Ministry of Education (MoE) and All India Council of Technical Education (AICTE) for demonstrating excellence in activities related to Innovations, Entrepreneurship, Startups, and Research & Development.

# <u>CEC-CGC, Landran, Mohali organized 23<sup>rd</sup> Orientation Programme for Newly Admitted Students</u>

Orientation programme was organized for newly admitted students of B.Tech 1<sup>st</sup> year (all branches) on 1<sup>st</sup> August, 2023. S. Rashpal Singh Dhaliwal, President, CGC offered a pleasant welcome to all the new students and their parents, and assured their parents that the college will register tremendous progress on all fronts with its sincere, dedicated and progressive efforts. The other dignitaries present in the orientation programme were Dr P. N. Hrisheekesha, Campus Director, Dr Jagtar Singh Khattra, Director Academics, Major Aulakh, Director Administration, Dr Rajdeep Singh, Director Principal, Ms. Gagandeep Bhullar, DSW and Dr Harpal Singh, Head Applied Science Department. This Orientation Programme was designed for the students, helping them to uncover the answers to the questions they had and providing them with information about campus resources, programs and services, college rules and regulations, Training & Placement Programme and other facilities. In the end, Dr Harpal Singh, Head, Applied Sciences Department proposed a vote of thanks and wished good luck to the new students.









# Expert Lecture on "Recent Innovations and Technological Advancements in the Realm of Thermal Engineering"

On the 10<sup>th</sup> of August 2023, an Expert Lecture titled "Recent Innovations and Technological Advancements in the Realm of Thermal Engineering" was arranged by the Department of Mechanical Engineering. Dr. Sandeep Singh, Associate Professor hailing from Punjabi University, Patiala, was the distinguished speaker for this enlightening event. Dr. Singh shared valuable insights with the students, providing them with a comprehensive overview of the cutting-edge developments and transformative technologies in the field of Thermal Engineering. During the lecture, the students had the privilege of learning about the latest methodologies and innovations that have been instrumental in reshaping the landscape of Thermal Engineering. This knowledge imparted by Dr. Sandeep Singh not only expanded their understanding of the subject but also fueled their enthusiasm for staying abreast of the dynamic changes and breakthroughs in this everevolving field.



#### My Story – Motivational Session by Successful Innovators

On the 17<sup>th</sup> of August 2023, the Department of Mechanical Engineering hosted a motivational session featuring successful innovator, Dr. Charanjeet Singh, the Founder and CEO of Modern Manufactures in Mohali, Punjab. Dr. Singh, in his capacity as the guest speaker, inspired the students to explore the path of entrepreneurship. He graciously shared his personal journey, shedding light on pivotal aspects like idea generation, implementation strategies, the significance of adopting the right approach, and the methods for effective execution. This event served as an valuable platform for students to glean insights from a seasoned entrepreneur, encouraging them to embrace their innovative potential and chart their own course in the world of business and innovation.



#### Mechnorobs Club organized Thrust2k23

Thrust2k23 aimed primarily to commemorate the legacy of Sir M. Visvesvaraya while underscoring the dynamic and forward-thinking essence of the engineering profession. The Mechnorobs Club, Department of Mechanical Engineering, meticulously coordinated this grand event in collaboration with the various engineering departments of CEC-CGC Landran. The occasion featured an impressive roster of Distinguished Alumni who were invited to partake in an enlightening experience-sharing session and a thought-provoking Panel Discussion centred around the theme of 'Engineering for a sustainable future'. The panel discussions served as a noteworthy platform for these alumni to impart their wisdom, addressing pressing issues confronting the engineering community. This allowed students to gain a multifaceted perspective on the challenges and opportunities present in the corporate landscape.

To ensure a holistic experience, a diverse array of Technical and Non-Technical events was organized, followed by a lively Cultural segment and a Prize distribution ceremony. Non-Technical competitions encompassed activities such as Sketching, LAN Gaming, Debates, Photography, and even Arm Wrestling. The inclusion of cultural events infused a lively and inclusive dimension into the festivities, fostering camaraderie and highlighting the rich diversity that characterizes the engineering community.



# **Internal Smart India Hackathon 2023**

Internal Smart India Hackathon-SIH 2023 was successfully conducted in CEC-CGC, Landran, Mohali on 21 September, 2023. The innovative solutions and prototypes provided by 130 teams of CEC-CGC and CGC-COE were thoroughly evaluated by the panel of judges which included experts from Industry, Alumni and Faculty of CGC. The selected teams are rigorously competent to represent CEC-CGC in Grand Finale of Smart India Hackathon 2023 which will be held at National Level PAN India.



# Applied Sciences Department organized Mr. & Ms. Freshers 2023 Finale

On 6th September 2023, Department of Applied Sciences organized a finale for the titles of Mr. and Ms. Freshers. The program kick-started at 2:30 PM in the seminar Hall of Block 9. The judges of the event were Dr Harpal Singh, HOD, Department of Applied Sciences, Dr Vinay Bhatia, HOD, Department of Electronics & Communications and Ms. Namrata Thakur, Assistant Professor, and former Ms. Euphoria. The candidates were judged on the basis of their walk, presentation, introduction, and their way of dressing up. The judges declared Hrishikeshan Saikia from B. Tech IOT as the Winner of Mr. Fresher, Akash from B. Tech AI-ML as the Runner up Mr. Fresher. In addition, Payal from B. Tech CSE was declared as the Winner Ms. Fresher and Divjot Kaur as the Runner up Ms. Fresher.



#### **Industrial Visit to GR Industries**

On August 11, 2023, the Department of Mechanical Engineering arranged an Industrial Visit to GR Industries for the students. Throughout this visit, students were exposed to the most contemporary manufacturing processes and state-of-the-art machinery, including CNC Machines. They had the opportunity to explore various sections within the plant, such as Milling, Turning, Grinding, Quality Control, Testing, Packaging, and Dispatch, gaining first-hand knowledge about the operational workflow at GR Industries. This industrial visit served as a valuable learning experience, allowing students to witness and understand the intricacies of manufacturing and quality control processes in a real-world setting, further enhancing their grasp of the subject.



#### **Industrial Visit to C-DAC Mohali**

The Department of Computer Science & Engineering organized an Industrial Visit to C-DAC Mohali on August 10, 2023. During the visit, the Technical Head briefed the students about current developments and trends in technology and explained the purpose of C-DAC, why it was formed, and how it operates.



#### **Industrial Visit to "Cheema Boilers Limited"**

On the 22<sup>nd</sup> of September 2023, the Department of Mechanical Engineering at Chandigarh Engineering College-CGC, Landran, organized an Industrial Visit to Cheema Boilers Limited, a world-renowned engineering solutions company with cutting-edge manufacturing facilities. This visit provided students with a unique opportunity to gain first-hand exposure to the industrial processes behind the production of boilers and related products. The students had the privilege of observing the entire manufacturing process, including material handling and the rigorous testing procedures employed during boiler production. To enrich their understanding, engineers from Cheema Boilers Limited offered detailed insights into these processes, sharing their expertise and addressing any questions posed by the students. This experience not only exposed students to state-of-the-art manufacturing but also fostered a deeper appreciation for the complexities and precision required in this specialized industry.



CSE Department organized Industrial Visit to Solitaire Infosys Pvt. Ltd., Mohali

The Department of Computer Science & Engineering at Chandigarh Engineering College-CGC Landran organized an industrial visit to Solitaire Infosys Pvt. Ltd. Mohali. The visit started with an introductory session where a company representative introduced their company, followed by a session conducted by a Technical Head. The Technical Head enlightened the students about various aspects of Artificial Intelligence and Ethical Hacking. The objective of the industrial visit was to provide real-time exposure, enabling students to learn more about the latest technologies in the market and gain insights about the industrial life.





# Industrial Visit to Bebo Technologies Pvt. Ltd., Chandigarh

The Department of Computer Science & Engineering organized an Industrial Visit to Bebo Technologies Pvt. Ltd., Chandigarh on August 11, 2023. The objective of this visit was to provide students with real-time exposure, help them learn more about the latest technologies in the market, and increase their awareness of industrial life. The visit commenced with a tour of the office, including their technical base, recreational zone, gym, day-care, and cafeteria. Initially, the students were briefed about the company's policies, the skills required, and the tasks they were expected to perform during the HR session. Following that, a technical session was conducted to acquaint the students with current market trends, technology standards, career options, and sought-after fields in the technical sector.





# **ECE Department organized Industrial visit to CDAC Mohali**

ECE Department in collaboration with IIIC Cell organized industrial visit to CDAC Mohali for the students of B.Tech. 3<sup>rd</sup> semester on 20<sup>th</sup> July 2023. This visit was organized to make students aware of the current and future industrial requirements. In this visit, students came to know about virtual reality technology and usage of it in today's world with the help of live orientation. Students came to understand about various cybe rescurity forensic tools like Advik (CDR Analyser), Netforce Suite, Win-LiFT (Windows Live Forensics tool), SIMXtractor.



# **CSE Department organized "TECH BRAINIACS"**

The Phonenix club of CSE department organized a technical event named "Tech Brainiacs" on August 24, 2023. "Tech Brainiacs" was hosted on the well-known platform "HackerEarth." It was a technical quiz consisting of 60 Multiple Choice Questions covering Technology, Aptitude, and Coding. The test comprised of 30 easy-level, 20 moderate-level, and 10 tough-level questions. Approximately 100 students participated in the event. The objective of this event was to encourage students to participate in such competitions and prepare them for upcoming career-related competitions, such as placements.





# Alumni Talk on "Enhancing Technical & Interpersonal Skills"

The Department of Computer Science & Engineering at CEC-CGC organized an Alumni Talk on September 8, 2023 with the objective of helping students understand and develop strategies to enhance their technical and interpersonal skills, improve focus and concentration, and cultivate a positive mind-set for personal and academic success. The Alumni Talk was conducted by Ms. Ramneek Kaur Jaggi, CEC-CGC alumna from the Batch of 2017-2021, currently working as a Technical Content Developer at Dell Technologies. She covered topics such as the intersection of technology and society, building self-confidence, career advice, and overcoming hesitation while expressing oneself in front of others. The speaker provided valuable information about emerging technology trends, innovation, and networking to help students improve their technical skills and manage their thoughts in various situations.





# Session on Academic Policies organized during SIP-2023

As part of Students Induction program, a session on Academic Policies was organized for the new students of Batch 2023. Dr. Jagtar Singh Khattra – Director Academics, CGC, Landran interacted with the students about Academic Policies of CGC, Landran. He discussed about Education system of CGC, college rules and regulations, attendance policy, struck off policy, leave policy etc. He also explained that how CGC provides good exposure to students and motivated them to participate in International Conferences, Seminars, Interdisciplinary research and training program. He also encouraged the students about research oriented environment in CGC and about the RISE department; filling of patents, research papers etc.



# First Year Students interacted with CGC Alumni during SIP-2023

During Student Induction program, an Alumni Interaction sessions were organized by Applied Sciences Department. In these Alumni sessions, Mr. Manik Minhas of 2017 passout batch was invited for interaction with the students. Mr. Manik is an Enterpreneur and running his own company Serial Enterpreneur (Fitzite, Social USS). Another alumni Mr. Maninder Pal Singh of 2023 passout batch also interacted with the students. Mr. Maninder is currently working as Business Analyst at Play Simple Game Pvt. Ltd. Both of them shared their experiences of CGC during their stay. They also shared various strategies for achieving good academic results and they also insisted the students to stay focused on their dreams and keep chasing them. Both the alumni praised about the ample opportunities available for placements at CGC. They particularly shared their success stories and gave complete credit to CGC. Moreover, they also effectively handled students' queries.



# **Anti-Ragging Session organized for New Students during SIP-2023**

As part of SIP-2023, the Applied Sciences Department hosted an anti-ragging session where students were informed about the anti-ragging policy. They were shown a documentary on anti-ragging as well. Moreover, they were instructed to fill the anti-ragging form for which the link was provided to them. In addition, they were informed that if any student found misbehaving or conducting ragging, a strict action will be taken against him or her which may also lead to his or her expulsion from the college. Any student may contact the anti-ragging committee or the higher authorities freely, if they encounter any misconduct of behavior from anybody.



# Art of Living Session organized for New Students during SIP-2023

The Applied Science Department hosted the Art of Living during student induction program for newly enrolled students of B.Tech Batch 2023. The keynote speaker, Mr. Sachit, delivered a speech in which he urged the students to rekindle their sense of joy and develop effective coping mechanisms for managing the stresses of life. He provided instruction on effective life management techniques, aiming to cultivate inner peace and self-confidence across various aspects of their lives. He provided them with an explanation on effectively managing life's challenges by adopting a constructive approach.



# **Campus Tour for Newly Enrolled B.Tech. Students**

During the Induction Program, which took place on August 2<sup>nd</sup> 2023, a campus tour was organized for the students of B.Tech first year. The purpose of this visit was to provide guidance and familiarize the students with the various departments of the College. The students were accompanied by their Class Counselors to the Multipurpose Ground, which serves as the venue for all major college events. They were also taken to several departments, Registrar Office, Accounts Office, Dispensary, Library, Canteen, Sports Ground etc. Additionally, students were taken to the RISE (Research) Department in order to foster their motivation in generating novel inventive ideas and research methodologies. The students expressed satisfaction with the campus visit and also acquired substantial knowledge pertaining to technology and research.



# Counseling Session with Psychologist for First-Year Students during SIP-2023

The Applied Sciences Department organized a Counseling Session with Psychologist during Student Induction Program-2023. The session was taken by Dr. Gagandeep Kaur, Psychologist at CGC. The main goal of this session was to make students aware of the challenges that prevail in our day to day life, which may give rise to stress and anxiety among the students. Therefore, guidance and support are very essential to help them overcome such problems. The counselor advised the students to remain calm and composed during such times, and seeks for her help at such difficult times. The Counseling session was oriented to help the students to understand themselves, and to prepare them for challenges of student life as well as help them acquire positive outlook towards academic and social life. The session also helped them create a set of belief and a value system that will guide their behavior and actions.



#### **Department of Students Welfare conducted a session during SIP-2023**

Department of Students Welfare (DSW) conducted a session for the new during Student Induction Program. This session was delivered by Dean Students Welfare- Ms. Gagandeep Bhullar and DSW coordinators who informed the students about the various clubs that fall under DSW. Along with that she gave them a brief overview of the activities conducted by these clubs. She encouraged them to join at least any one of these clubs. She shared with them the benefits of joining an on-campus club as it would help them grow both personally, socially and professionally. The activities that are routinely organized by these clubs teach the students practical life lessons, while it helps them socialize, gain confidence, obtain newer and fresher perspective on various things, and teach them to work as a team while having fun.



#### **Student Feedback Session for First-Year Students during SIP-2023**

Student Feedback Session was conducted on 8<sup>th</sup> August, 2023 i.e. on the last day of Student Induction Program. The Session was conducted by the class counselors in which shared a Google form with the students. The students were advised to fill the form. The students were also asked about their various experiences during the Induction Program. This session was conducted in order to have a better understanding and viewpoint of the students with a hope for an improved and improvised induction program and sessions for the upcoming batches and upcoming years.



# **Fun Games organized for First-Year Students**

During SIP-2023, the Applied Sciences Department organized a series of recreational activities i.e. Fun Games for the recently enrolled first-year B.Tech students as part of their Student Induction Program. The main goals of these activities were to engage students and have maximum participation. These activities included- Twist Twister, Kaun Banega Champion and Listen and Tap. The students actively participated in all these activities. They interacted with each other, relaxed and had fun during this session.



# **Go Green Activity for First-Year Students**

The Applied Sciences Department hosted a Go Green Activity for first year students during Student Induction Program-2023. This activity was a brainstorming in which students talked about various ways in which a sustainable environment can be achieved. The students discussed amongst themselves the strategies through which natural resources can be saved from exploitation. They addressed issues of climate change, pollution, waste reduction and segregation, water conservation amongst many other topics that need our immediate attention. The activity encouraged students to come up with some great innovative ideas that will not only help the department but could also help larger number of people to conserve resources.



# Health and Wellness Session organized during SIP-2023

The Applied Sciences Department organized a Health and Wellness Session for the newly admitted B.Tech first-year students. The session was delivered by Ms. Manjula, whos is a Life Skills Coach & CEO of The Transformers Value Creators. Ms Manjula is also well renowned Social Entrepreneur and a JOSH TALK speaker. This session was organized with an aim to enhance the physical, emotional, spiritual and mental well being of the students. The main purpose of this session was to promote healthier lifestyles and encourage students to practice healthy eating habits and the need for physical activity to attain better physical and mental health. A healthy lifestyle will not only improve their physical and mental well being but also help them perform better in academics. The session was highly informative for the students.



# Students interaction with International Affairs Department during SIP 2023

The Applied Sciences Department organized International Affairs Sessions for B.Tech first year students during SIP-2023. These sessions were conducted under the guidelines of Dr. Ramandeep Saini, Dean, Department of International Affairs, CGC. On both days, the sessions were delivered by Dr. Neha Singh, Assistant Manager, International Affairs Department CGC. She briefed the students about the various international programs and opportunities they can avail and enroll like summer schools, semester exchange, internships etc. She enlightened them about the events organized by their department like international competitions, guest lectures, MUNs, debates, global village etc. She explicated about Global Study Opportunities and Collaborations with 45+ Leading Universities across the Globe. She also shared the experiences of students who went abroad under various programs by presenting their photographs through PowerPoint presentation.



# Session on Universal Human Values for First-Year Students

The Applied Sciences Department hosted an Introduction to Universal Human Values Sessions for the newly admitted B.Tech first-year students from all branches as part of their Students Induction Program-2023. Human Values are the core to the very existence of human beings. These sessions introduced the students with the fundamental human values and the importance it holds in their life at present and in the future. The core Human Values includes—Honesty, Discipline, Loyalty, Right Conduct, Truthfulness, and Respect for all. The importance of these values were taught to the students as they bring out fundamental goodness in human beings and society at large.



# Literary Activities conducted for First-Year Students during SIP-2023

The Applied Sciences Department conducted Literary Activities during Students Induction Program 2023 for the new students. The literary activities that were coordinated encompassed many forms of intellectual engagement, such as debate, essay writing, and slogan composition. In addition to engaging in academic pursuits, active involvement in co-curricular activities is vital for comprehending the diverse facets of a student's character. Engaging in literary activities not only facilitated the development of their language proficiency, but also compelled them to engage in critical thinking, written expression, and spoken communication on a diverse range of significant subjects, fostering subsequent discussions with their peers. Engaging in such activities fosters the development of courage and confidence, enabling individuals to express their viewpoints effectively, while simultaneously enhancing their proficiency in public speaking and writing.



#### Library session organized for new students during SIP-2023

The Applied Science Department organized a Library session during the student induction program. The session was conducted by the Chief Librarian of Chandigarh Group of Colleges Ms. Renu Oberoi. Ms. Renu informed the students about departmental library and central library, books available in the libraries, national and international journal in the libraries and digital library of CGC. She also told the students that library is organized into various sections viz Circular Section, Periodical Section, Reference Section, Newspaper/ Magazine Section, Technical Section, Binding Section, which are manned by professionally qualified staff.



# A Day Out for the New Comers during SIP-2023

During induction program-2023, the Applied Sciences Department, Chandigarh Engineering College-CGC, Landran, Mohali organized a visit to local city for the students of all branches. The students were made aware of the local area and the market. The students were taken to VR Punjab Mall where they engaged in novel experiences and relished a pleasant time in the company of their peers and instructors. The students' displays of fervour and energy were inspiring. They were excited to see the traditional and brand shops. With delicious food, shopping and pleasant conversation with the friends, the students had a wonderful time.



# **Mentor-Mentee Session for First-Year Students**

The Applied Sciences Department hosted a Mentor- Mentee session for the newly admitted B.Tech first-year students from all branches as part of the Students Induction Program-2023. The main goal of Student Induction was to help and assist new students in understanding the new surroundings. In addition to that it inculcates in them the ethos and culture of the institution, helps them build bonds with the faculty as well as their fellow classmates. It also helps them explore a sense of purpose and goals for the future. Mentor-Mentee Program sets a tone for the same. The main purpose of the program was to make students feel comfortable in the new environment while helping them develop an understanding of their environment, open them up, help them understand their college routine, create a bond between the students, as well as the faculty, develop awareness and understanding of the self and people around them.



# A Showcase of Inspirational Movie for First-Year Students

The Applied Sciences Department hosted a Motivational Movie Showcase for the newly admitted B.Tech first-year students from all branches as part of the Students Induction Program-2023. They were shown an inspirational film "I am Kalam." The central character of this cinematic production is a juvenile male named Chhotu, who is gainfully employed at a Dhaba establishment and is from a socioeconomically disadvantaged background. The film primarily centred on the experiences of two male individuals hailing from contrasting socioeconomic circumstances. Notably, the affluent protagonist, Ranvijay, played a pivotal role in aiding the underprivileged young lad to secure admission into an educational institution. The film culminated with a strong emphasis on the concept of achieving parity in educational opportunities. The duration of the movie was 90 minutes. The positive demeanour undeniably engendered a sense of enthusiasm among students, who derived immense pleasure from the experience.



# NCC Session for new students during SIP-2023

The NCC session was organized by Applied Science Department during SIP (Student Induction Programme) for the new students. NCC stands for the National Cadets Corps and the main aim of NCC is to create an organized, trained and motivated youth. The session started with a small video related to NCC followed by an interaction by our CEC-CGC NCC Cadet Mr. Arpit who gave useful information about NCC to the students. He informed the students that the National Cadet Corps (NCC) fosters the development of leadership qualities among young individuals, in addition to imparting the values of discipline. Additionally, he conveyed that the National Cadet Corps (NCC) plays a pivotal role in fostering the growth and readiness of Indian youngsters across the three branches of the armed forces, namely the Indian Army, Indian Navy, and Indian Air Force. The students were also provided information regarding the enrollment process for the National Cadet Corps (NCC).



#### **Show Your Talent Activities organized for First-Year Students**

The Applied Sciences Department organized several activities for the newly admitted B.Tech first-year students from all branches as part of the Students Induction Program-2023. The activities incorporated into the introduction program were strategically designed to actively involve the students throughout the duration of the day, while it also helped them and us to understand their fields of interests other than academics. Every student in this session chose one skill that was related to arts or performing art. The activities encompassed various forms of artistic expression like one act play, instrument playing, dancing, singing, mimicry etc. These activities not only provided students the opportunity to unwind and alleviate stress, but also aimed to augment their creative aptitude.



# **Training and Placement Session organized during SIP 2023**

During student induction program-2023, Training and Placement session was organized by Applied Science Department for B.Tech 1<sup>st</sup> year students. The keynote speakers, Mr. Jitanshu and Ms. Urmila (Soft Skill Trainers) provided an overview of the Training and Placement Department (TPP) and its role in facilitating campus placements to assist the students for their campus placement. They motivated the students to develop their personality and communication skills. They also emphasized the value of learning programming languages like C, C++, Java, Python, etc. to land lucrative jobs at reputable organizations.



# **Multifarious Activities organized for First-Year Students**

The Applied Sciences Department organized multiple activities during induction for the newly admitted B.Tech first-year students from all branches as part of their Student Induction Program-2023. Group Activities like Treasure Hunt, Coding, Team Building Bingo and Mystery Box were organized by the department. The primary objective of these activities was to cultivate students' ability to collaborate effectively while deriving enjoyment from the assigned tasks as integral components of the activity. Collaborative work or teamwork is a fundamental attribute that individuals should possess, as it not only enhances efficiency, but also cultivates innovation, broadens viewpoints, and fosters a sense of enjoyment, camaraderie, and optimistic mindset.



# Yoga Session organized for B.Tech 1<sup>st</sup> Year students during Student Induction Program

During Student Induction program-2023, different Yoga sessions were organized by Applied Science Department. Dr. Sham Singh, Faculty from Applied Sciences Department, Captain Vinod Jaswal, Head Sports Department, CGC and Ms. Amandeep, Sports Incharge, CGC took sessions and motivated the students and sensitized them about the various benefits of Yoga. They elaborated the students that Yoga is a practice which plays an important role in relaxing the mind and body and boosting one's immune system. All the students participated in warm-up activities and did both sitting and standing *Asanas* while simultaneously hearing explanations of their significance. The students received instruction on the significance of incorporating yoga into their lives and learned techniques for maintaining physical and mental equilibrium. The students also expressed their desire to incorporate yoga into their daily life by making a number of commitments and asking numerous questions about the significance of the practice.



#### **Student Induction Program-2023 culminated with Valedictory Ceremony**

Successful completion of Students Induction Program (SIP) was followed by a valedictory ceremony which was organized on 8th August, 2023 i.e. on day 5 of induction. The first year students shared their experiences in regards to the Induction Program and how they look forward to their new and exciting journey at CGC. Ms. Gagandeep Bhullar, Dean Students Welfare, interacted with the students and blessed them with wishes for a successful college life at CGC. She also gave away the prizes to the winners of different events that were conducted during the Induction program. The winners of different events were-

- A Twist on Twister- Mokshita Rana, Anshul Arora, Ritika Maiti, Nitin Raj
- Kaun Banega Champion- Arpit Kumar, Danyal Ahmad, Shivam, Prashant, Mohd. Nomaan, Manvender Singh, Sachin Kumar, Jay Kumar
- Listen and Tap- Kartik Kumar, Mansi Aggarwal, Gracy Ahuja, Madhav Nanda, Mahin Sharda, Karan Joshi, Shradha Dhawan, Gungun
- Essay Writing- Vaishnavi, Anish Sharma, Ritika Sinha, Vanshi, Amrit Kaur, Anshika Bakshi, Vansh Mehta, Anushka Yadav
- **Slogan Writing-** Nikhi Kapoor, Arpit Kumar, Ritika Maiti, Prerna Sharma, Mehak Sharma, Anushka, Harsimran Kaur, Aashima
- Dancing- Preneet Kaur, Yashwant Sharma, Maahi Kukreja
- **Singing-** Kashish Gupta, Mehakpreet, Pandey Ankit Sunil, Vinayak Sharma, Bharat Rohilla, Osho, Sneha



#### Expert Lecture on "Innovation in Electronics Agriculture Instrument for Smart Farming"

The Department of Electronics and Communication Engineering organized an expert talk on the topic "Innovation in Electronics Agriculture Instrument for Smart Farming" on 18<sup>th</sup> August, 2023. The expert talk was organized by Electronics Project Club (EPC) in association with Institutional Innovation Council (IIC) and Institutional Industry Interface Cell (IIIC) of ECE Department. The expert, Mr. V.D Shivling (Chief Scientist CSIR-CSIO) provided insights into the topic for the students. The speaker discussed about the sustainable development goals and how farming technique and equipment have revolutionized over the time. The expert also talked about various other topics like hyper spectral camera, seed dropping and also about innovation done by his team till now in the field of Agriculture Instrument for Smart Farming.



**ECE Department organized "Symposium of Innovation"** 

Techcomm Professional Society in collaboration with "Institution's Innovation Council" organized an event "Symposium of Innovation" on 18<sup>th</sup> August,2023. This event was organized to make students showcase their hidden talent and to bring their innovation in front of everyone and providing them a platform. The event was divided into two sections: Project Display and Poster Presentation. Winners of the Project Display were Harshit (Project LIVA) and Yash (Project Smart Farming). Winners of the Poster Display were Sonam, Aditya and Sonali.



#### Industrial Visit to Solitaire Infosys, Mohali

Electronics and Communication Engineering Department and IIIC Cell organized industrial visit to Solitaire Infosys, Mohali on 21.7.23 for the students of B.Tech 3<sup>rd</sup> semester. The main aim of this industrial visit was to educate the students about the latest technologies used in the IT Industry. The session was organized by an expert speaker Mr. Joginder Singh, Project Manager of Solitaire Infosys. He taught the students about various technical topics and the importance of projects and skills on Mobile applications, Web Applications, Enterprises Applications, Digital Marketing Strategies, Tech Support & Maintenance.



# Industrial visit to Solitaire Infosys, Pvt. Ltd, Mohali

ECE Department in collaboration with IIC organized Industrial visit to Solitaire Infosys, Pvt. Ltd, Mohali on 24<sup>th</sup> August 2023. This event was organized to enhance awareness about the current and future industrial requirements. In this visit, students came to know about virtual reality technology and its usage in today's world with the help of live orientation and activities done in the past.



#### Industrial Visit to Semiconductors Limited(SCL), Mohali

ECE Department in collaboration with IIC organized Industrial visit to Semiconductors Limited (SCL), Mohali on 25<sup>th</sup> August,2023. The visit aimed at sensitizing the students about the various domains of VLSI design in India. The students visited the various sections like the Fabrication Lab where they learned about how the chip is fabricated starting from a silicon wafer and undergoing various processes. They also visited the assembly section where the chip is finally assembled to the form it is made available to customers. They also got an insight into the testing section where the final stringent testing of the chip is done so as to make a complete product.



# ECE Department organized Industrial visit to Solitaire Infosys, Pvt. Ltd, Mohali

ECE Department in collaboration with IIC organized Industrial visit to Solitaire Infosys, Pvt. Ltd, Mohali on 29<sup>th</sup> August 2023. Students came to know about current and future industrial requirements related to virtual reality technology and its usage in today's world with the help of live orientation and activities done in the past.



#### **Tech-Up event organized by ECE Department**

Electronics Project Club of ECE Dept. in collaboration with ACIC RISE Department orchestrated a highly anticipated event "Tech Up"- PowerPoint Presentation Competition on 15<sup>th</sup> September 2023. The primary objective of this event was to encourage participants to collaboratively generate innovative solutions to specific challenges or problems within a defined time frame. The competition provided participants a unique platform to not only showcase their technical acumen but also to flex their non-technical skills, such as effective communication and presentation abilities.



#### ECE Department organized Industrial Visit to Pushpa Gujral Science city

The Electronics and Communication Engineering Department organized an enriching industrial visit to Pushpa Gujral Science City, Kapurthala on 15<sup>th</sup> September 2023. This outing provided an exceptional opportunity to the students to delve into the realms of science and technology. One of the highlights of this visit was the Robotics Competition, where our students showcased their engineering skills and creativity. The students visited several galleries - Amazing Living Machine, Science of Sports, Virtual Reality and Cyber Space, Earthquake Simulator, convention hall and Dinosaurs park to grab memorable, entertaining, knowledge-based and excitable experience.



#### Session on "De-Addiction of Drugs- Say No to Drugs" under UBA

An interactive and informative session on the theme "De-Addiction of Drugs- Say No to Drugs" was organized on 14<sup>th</sup> September 2023 by Unnat Bharat Abhiyan (UBA) cell of Electronics and Communication Department in the village of Saidpur adopted by the Chandigarh Engineering College-CGC Landran, Mohali. The main objective of the event was to make people aware about the consequences of Addiction of Alcohol and to make the villagers aware about the De-Addiction of Drugs. The UBA cell also organized a session in the Government high school of Saidpur village which includes various informative and interactive activities for children like making a software game from scratch, dumb charades, sketching competition and many more. The students were also given gifts and chocolates as a token of appreciation.



## IT Department organized "Alumni Talk"

IT Department of CEC-CGC, Landran, Mohali organized an "Alumni Talk" on September 15, 2023 for B. Tech-5<sup>th</sup> semester students. The talk was delivered by our alumni Mr. Saiyam Chawla of 2018-2022 batch. He is currently working as Software Developer with Target Integration Consultancy Pvt Ltd.



# Workshop on "Intellectual Property Rights and IP Management"

The IT Department of CEC-CGC, Landran, Mohali organized workshop on "Intellectual Property Rights and IP Management" on September 19, 2023 to give students a brief about the patents, copyrights and the process to file them. The students came to know about the importance of patents and copyrights from this workshop.



#### **Coding Competition on Engineer's Day**

The Bug Bytes League, held on September 15, 2023, celebrating Engineers Day, was a thrilling showcase of coding competency and problem-solving skills. Organized jointly by the Department of IT and CSE and the Tech Roadies Club, this event attracted students, faculty and staff to participate in a coding marathon featuring four challenging questions. Participants had the opportunity to enhance their coding skills by tackling challenging questions and contributing to their personal and professional growth.



# Expert talk on "Cyber security" by CDI

The Institution Innovation Council (IIC), Chandigarh Engineering College-CGC organized an expert talk on cybersecurity by Mr. Lovejot Singh Chhabra, founder CDI, on August 4, 2023 to aware students about cyber security and its use in today's world. The advantages and disadvantages in national defence system were discussed. The participants understood about the various updates occurring in cyber security and their advancements in today's world.



## **IIC Awareness Session For Students**

The Department of Information Technology of CEC-CGC, Landran, Mohali organized session to aware students of batch 2021-2025 about IIC (Institute Innovation Council) Cell and its various functions. The aim of session was to inform students about patents, hackathons and various other activities and encourage them for active participations. The event began with the greetings of our Speaker Dr. Amanpreet Kaur, IIC Convener, CEC-CGC Landran.



# **Industrial Visit to Ellocent Labs IT Solutions Pvt. Ltd**

The Department of Information Technology and Institution's Innovation council (IIC) of CEC-CGC, Landran, Mohali organized Industrial Visit to Ellocent Labs IT Solutions Pvt. Ltd. on August 3, 2023. Students interacted with Designers, Project Leaders and Business analytics to understand the working environment.



# **Sketching Competition On Engineer's Day**

On September 15, 2023, in commemoration of Engineers Day, a dynamic Sketching and Drawing Event was organized specifically for students by the Department of Information Technology (IT) and Computer Science and Engineering (CSE). The event was in collaboration with the Tech Roadies Club.



#### **DECODE-O-BYTES**

The event DECODE-O-BYTES was organized under the "Tech Roadies Club" of IT department. It consisted of three rounds namely MCQ, Coding and Debugging round. It was a multifaceted competition testing participants' programming knowledge, coding skills and problem-solving abilities in various formats.



# **Tree Plantation Drive**

Tree Plantation Drive was organized by Information of Technology Department of CEC-CGC in association with the Divisional Forest office, S.A.S Nagar, Department of Forest and Wildlife Preservation, Punjab under the title "Conserve and Preserve the Environment". The students actively participated in tree plantation activity and they all took oath that they will plant more trees in their surrounding areas.



# **Applications of Artificial Intelligence**

Applications of Artificial Intelligence (AI) have been employed in business and academics to solve specific issues. Like electricity or computers, artificial intelligence is a general-purpose technology with a wide range of uses. It has been applied to areas such as e-commerce, credit scoring, picture recognition, and language translation.

#### Virtual assistants:

AI is used by intelligent personal assistants to comprehend many natural language requests in addition to simple instructions. The popular are Siri from Apple, Alexa from Amazon, and ChatGPT from OpenAI are more recent examples.

#### **Spam filtering:**

Spam, fraud, and phishing can all be fought using machine learning. It may examine spam and phishing attack content to look for any dangerous components. Many machine learning-based models do remarkably well, with accuracy rates of over 90%, in identifying spam from real emails.

#### Facial recognition and image labelling:

Systems for facial recognition that use AI have a 99% accuracy rate. Examples of mobile device security solutions include Apple's Face ID and Android's Face Unlock. Google has employed image tagging to find objects in pictures and enable image-based searches. It has also been shown that image labelling may provide speech to describe images to blind persons.

#### **Language translation:**

Products like Microsoft Translator, Google Translate, and DeepL Translator employ AI to translate text and spoken language automatically. Additionally, efforts are being made in research and development to understand and use animal communication.

While no system provides the ideal of fully automatic high-quality machine translation of unrestricted text, many fully automated systems produce reasonable output. The quality of machine translation is substantially improved if the domain is restricted and controlled. This enables using machine translation as a tool to speed up and simplify translations, as well as producing flawed but useful low-cost or ad-hoc translations.

Written By: Bhudev 2237155

BTech ECE (3rd A)

# **Faculty Achievements**

The teaching and non-teaching faculty members of Chandigarh Engineering College-CGC Landran, Mohali were bestowed with Best Teacher Awards and Awards of Appreciation on the basis of merit for their unwavering efforts on the occasion of Teachers Day, 2023.



Mr. Harvinder Singh -Best Teacher Award





Mr. Harvinder Singh -Award of Appreciation



Dr. Priyanka Kaushal -Award of Appreciation



Ms. Inderjot Kaur -Achievers Award



Dr. Shashi Bala -Achievers Award



Dr. Satish Kumar -Best Mentor Award



Dr. Rajat Sayal –Award of Special Achievement



Ms. Sapna Rikhi-Award for 15 Years Service at CGC



Mr. Rajwinder Singh–Award for 15 Years Service at CGC



Ms. Monika Sharma –Achievers Award



Ms. Namrata Chopra –Award for 4 years as DSW Coordinator



Mr. Aneesh Goyal - Award for 10 Years Service at CGC



Mr. Jasbir Singh- Best Technical Supervisor



Mr. Ravinder Singh- Award for 10 Years Service at CGC  $\,$ 

Mr. Randhir Singh- Award for 10 Years Service at CGC  $\,$ 



Mr. Amrik Singh- Award for 20 Years Service at CGC



Mr. Jaspal Singh- Award for Best Instructor



Mr. Jaswinder Singh- Award for 10 Years Service at CGC

#### **Faculty Publications**

- ➤ Dr. Ashima Kalra published book chapter on "Applications of Artificial Intelligence Across Industry 4.0" and, "Nature Inspired Computing for Optimization" by CRC Press in 2023.
- ➤ Dr. Ramanpreet Kaur published book chapter on "Performance Comparison of Routing Protocols of WBAN for Emergency Handling in Homogeneous Network" and "Recognition of Hypertension Through Retinal Fundus Images by Segmentation of Blood Vasculature" by Springer in August 2023.
- ➤ Dr. Tarun Singhal published book chapter on "Methods and Applications of Graph Neural Networks for Fake News Detection Using AI-Inspired Algorithms" by IGI Global in July 2023.
- ➤ Ms. Nidhi Chahal published book chapter on "Impact on Industrial and Domestic Applications" by Scrivener in July 2023.

#### **Students Achievements**

- ➤ Suhel Sharma, Kartik Joshia of ECE department participated in inter college badminton tournament, Jalandhar and secured 3<sup>rd</sup> position.
- ➤ Students of ECE department participated enthusiastically in different technical events organized by CEC-CGC Landran, Mohali and CGC Jhanjeri on Engineers Day, 15<sup>th</sup> September,2023.

# **Patents Filed**

➤ Patent filed by Dr. Pradeep K. Gaur on "Automated Internal Thread Cutting" with CBR 97824 in August 2023.

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