CHANDIGARH
ENGINEERING COLLEGE
CGC, LANDRAN, MOHALI

Building Careers. Transforming Lives.

The Communiqué

(Capturing Moments, Preserving Memories)

News Magazine | Volume-33

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An Institution of Excellence

2024

www.cgc.edu.in

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,

I appreciate the opportunity to share my reflections in this quarter's edition of our college magazine. This quarter has showcased the remarkable skill and commitment that flourishes within our organization. We have seen many faculty recognitions, a touching reflection of the skill and dedication our educators contribute to their positions. The orientation programme for our new students was a remarkable success, establishing an encouraging atmosphere for their academic journey ahead. The energy and creativity showcased at the freshers' party truly resonated within me. Seeing our new students welcomed so warmly by their peers was a true delight, creating a sense of belonging that is essential for their success. Our dedication to comprehensive growth was clearly evident in the wide range of extra-curricular activities that occurred. As we look to the future, I encourage each new student to grab every new challenge with courage**.**

Further, I would like to extend my appreciation to all contributors—students, faculty, and staff—who have provided their articles, insights, and experiences. Your contributions have enhanced this publication and offered a thorough perspective on the dynamic life of our college. I extend my gratitude to all contributors who played a role in the development of this magazine. The effort and ingenuity you have demonstrated have culminated in a publication that reflects our collective pride. My good wishes to all.

Dr. Harpal Singh
Professor & Head, Applied Sciences Department

Greetings Everyone!!!
Dear Colleagues and Students,

I am pleased to present my insights to everyone via the pages of our college magazine. The college magazine provides an insight into the dynamic and varied academic environment present within our department. First and foremost, I would like to extend a warm welcome to the new students who have enrolled with us this quarter. Your enthusiasm and participation enriches our college community by presenting fresh perspectives and untapped opportunities. The department is ready to commence this academic journey with you and is committed to providing a supportive and resourceful setting that allows you to succeed and achieve your goals.

I would also like to take this opportunity to recognize the contributions of our faculty and staff. Your dedication to education, inquiry, and community engagement forms the foundation of our department's achievements. Your knowledge and skills motivate our students and propel our shared successes. As we advance through this academic year, it is essential to acknowledge and leverage the opportunities for growth and understanding that lie ahead. We will continue to foster a culture defined by innovation, collaboration, and excellence.

Once again, I on my behalf and on the behalf of Applied Sciences Department welcome all our new students. I look forward to seeing the remarkable achievements we will accomplish together this year.

From the Editor's Desk….

Dear Readers,

Greetings and welcome to the 33rd edition of Communiqué, a quarterly publication of CEC-CGC. I am pleased to present this latest edition of our college magazine. This issue highlights the dynamic essence, innovative spirit, and determination that characterize our campus community. Every article, photograph, and artwork serves as a representation of the varied perspectives that play a vital role in the essence of our institution.

This edition highlights the integration of established practices and modern advancements that influence our scholarly and cultural experiences. Our writers have dedicated their efforts to articulating the distinctive qualities that define this college as a remarkable and motivating environment through insightful articles. We are pleased to highlight the skills of our students alongside the commitment of our faculty and staff, who consistently influence the future direction.

The entire editorial team appreciates the contributions of creativity, time, and dedication from all involved in the publication of this edition. Your contributions and perspectives have elevated this publication to a remarkable level.

Enjoy the read!

Dr. Inderjot Kaur
Editor-in-Chief

RANKING & AWARDS 2024

1 NAAC A+ Grade obtained in March 2024

- CEC-CGC Landran has achieved NAAC A+ Grade by NAAC

2 Dataquest Tech School survey, 2024

- 1st In Punjab in Top 100 T-Schools (Overall) – Government and Private
- 1st in Punjab in Top T-Schools (Private)
- 5th rank in North India (Zone Wise)
- 12th rank in Top 100 T-Schools (Private)
- 17th rank in Top 100 T-Schools (Overall) – Government and Private

3 India Today Ranking 2024

- 7th In Top 10 Colleges with Best Value for Money (Private All Over India)
- 1st Rank in Private College in Punjab (Self-Financed)
- 57th Rank across country Private Colleges
- 85th Rank across country Private and Govt Colleges

4 DQ-CMR T-School Employability Index Survey 2024

- 13th Top 100 T-Schools (Factual Ranking) Employability Index
- 7th Top Private T-Schools (Factual Ranking)
- 7th in North Zone- Top 10 Zone Wise Institutes
- 90th in Top 100 T-Schools (Perceptual Ranking) Employability Index
- 16th in Regional Top 50 Ranking (North - Perceptual Ranking)

5 Outlook 2024

- 138th among top 160 private institutes in India

6 THE WEEK-Hansa Research Survey 2024

- 64th Rank in Govt and Private All Over India
- 38th Rank in Private Colleges In all over India
- 8th in North Zone Govt and Private Colleges in all over India

7 Times of India Engineering Survey 2024

- 141st in Top 175 Engineering Institute Rankings 2024

8 NIRF 2024 (Engineering Category)

- CEC-CGC Positioned in the band of 101-150 in the Engineering Category

9 NIRF 2024 (Overall Category)

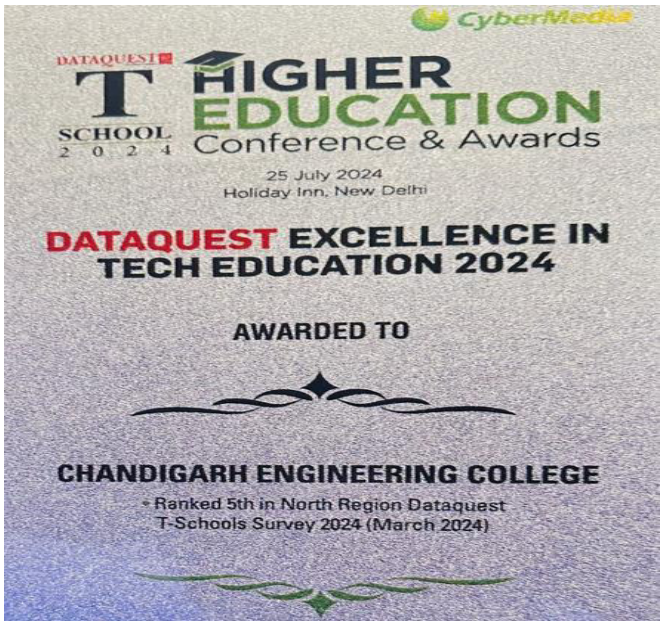
- CEC-CGC Positioned in the band of 151-200 in the Engineering Category

CEC-CGC, Landran outshines in DATAQUEST T-School Awards 2024

Chandigarh Engineering College-CGC, Landran, Mohali, has once again solidified its reputation by earning a prestigious spot in the DATAQUEST T-School Awards 2024. The award ceremony, held on 25th July 2024 at the Holiday Inn in New Delhi, was a grand event presided over by Honourable Mr. Ravneet Singh Bittu, the Minister of State for Railways and the Minister of State for Food Processing Industries, as the Chief Guest. The ceremony also saw the presence of Honourable Mr. Satnam Singh Sandhu, Member of Parliament (Rajya Sabha) and Chairman of CGC Landran, as the Guest of Honour. Dr. Rajdeep Singh, Director-Principal of CEC-CGC, received the award during the ceremony, marking another significant milestone for the institution.

Honourable Mr. Ravneet Singh Bittu

Honourable Mr. Satnam Singh Sandhu



CEC-CGC ranked 5th in North Region

CEC-CGC, Landran, Mohali achieved a notable ranking in NIRF Innovation Ranking-2024

Chandigarh Engineering College-CGC, Landran, Mohali is pleased to announce its notable ranking attained in the National Institutional Ranking Framework (NIRF)-2024 (ARIIA), as acknowledged by the Ministry of Education, Government of India. The yearly NIRF Innovation Ranking encompasses a diverse array of institutions, such as private and self-financed colleges and universities, IITs, NITs, along with numerous government institutes and universities across the nation. The NIRF-Innovation Ranking Framework gathers data using 22 Key Performance Indicators, which are organized into seven primary parameters. The parameters encompass Teaching Learning & Innovation, Research and Professional Practice, Graduation Outcome, Policy, and the Institutionalization of I&E Activities, among others, within higher education institutions. The institute is pleased to report its position within the band range of 101-150.

CEC-CGC's NIRF Ranking 2024

Fresh Faces, Bright Futures: CEC-CGC Landran, Mohali extended a hearty welcome to the new batch during 24th Orientation Program

The atmosphere at Chandigarh Engineering College-CGC Landran on 15th July, 2024 was charged with enthusiasm and anticipation as the college hosted its 24th orientation programme to mark the beginning of a new academic year. A vibrant assembly of freshmen, joined by their parents, gathered to embark on their educational journey at the esteemed institution.

The 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, Dr. Ruchi Singla, Director Research, Ms. Gagandeep Bhullar, DSW and Dr Harpal Singh, Head Applied Science Department.

The Campus Director and Director Principal delivered a formal address to the new students, offering their blessings and warm wishes for the start of their academic journey. The Orientation Programme was designed with the purpose of aiding students in their quest for information and offering them a thorough understanding of campus resources, programmes, services, college policies, the Training & Placement Programme, and other amenities. In the end, Dr Harpal Singh, Head, Applied Sciences Department proposed a vote of thanks and wished good luck to the new students. After the Orientation Programme students also interacted with their class counselors to complete the registration process as per the institute's policy.

Hence, the 24th orientation programme at CEC-CGC successfully concluded, instilling a sense of confidence and excitement among both students and parents for the upcoming academic year. The atmosphere at the college was filled with a strong sense of camaraderie as the new students formed connections with their peers and professors, preparing themselves for an educational journey that would bring about significant personal growth.

Lamp Lighting Ceremony during Orientation Programme

New Students lighting the lamp during Lamp Lighting Ceremony

Campus Director CGC Landran addressing the freshmen

Director Principal addressing the freshmen

New Students attending the Orientation Programme

Head of Department interacting with the students during Orientation Programme

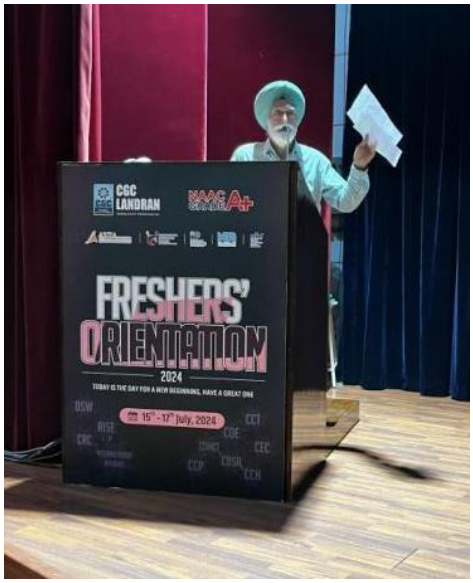
Freshmen attending the Orientation Programme

Overview of the Orienation Programme being delivered to the Freshmen

College Presentation being delivered during Orientation Programme

Students' session with Director Academics CGC during SIP-2024

As part of the Student Induction program 2024, a session on Academic Policies was scheduled for the new students of Batch 2024 on 19th July 2024, which took place on day 5 of the induction. Dr. Jagtar Singh Khattra– Director Academics, CGC Landran interacted with the students about Academic Policies of CGC Landran. The session was designed to help the students become acquainted with the institute's policies and procedures regarding attendance, assignments, examinations, grading, and other academic processes. Dr. Khattra discussed attendance policy, struck off policy, and leave policy in detail. The Director Academics stressed the significance of comprehending these policies for a prosperous academic journey. Furthermore, he highlighted the various opportunities that CGC provides to students, allowing them to gain exposure and actively participate in international conferences, seminars, interdisciplinary research, and training programmes. He enthusiastically encouraged the students to embrace the research-focused atmosphere at CGC and the RISE department. This includes engaging in activities like filing patents, publishing research papers and start-ups etc.



Director Academics delivering the session

Session on Academic Policies during SIP 2024

Counseling Sessions with Psychologist organized for freshmen during SIP-2024

During the Student Induction Programme-2024, the Applied Sciences Department scheduled counseling sessions on day 3 and day 5 of SIP i.e. on 17th & 19th July 2024 with Psychologist for all the branches of B.Tech first year. Dr. Gurleen Kaur, a psychologist at CGC, led the session. The objective of these counseling sessions was to facilitate the cultivation of self-awareness among students and provide them with the essential skills to effectively navigate the academic challenges they may encounter. Moreover, the goal was to foster a positive mindset towards both the academic and social aspects of student life. The psychologist offered valuable guidance on coping mechanisms, stress management, and navigating academic pressures. In addition, she urged the students to seek her help during challenging periods.

Sessions with Psychologist on stress management during SIP-2024

Dr Gurleen discussing the signs and symptoms of stress

Freshmen attending the session on Stress Management

B.Tech. Freshmen attended IQAC Session during SIP-2024

B.Tech Freshmen attended IQAC (Internal Quality Assurance Cell) session during student induction programme-2024 on day 5 i.e. on 19th July 2024. The session was facilitated by Dr Anuradha, core member IQAC. The purpose of this session was to provide a clear understanding of the IQAC, which is a crucial entity responsible for maintaining high standards of excellence within the college. The session provided an overview of the role of Internal Quality Assurance Cell (IQAC) as the college's internal quality monitor. It emphasized the objective evaluation of various aspects such as teaching, learning, research, infrastructure, and student services. The students were informed that the IQAC (Internal Quality Assurance Cell) operates with the objective of ongoing enhancement of the college and ensuring optimal academic experience for incoming students. The composition of the IQAC was also discussed during this informative session. The new entrants acquired knowledge about the cell's functions, including the implementation of quality initiatives, the coordination of faculty development workshops, and also about student satisfaction feedback. The speaker also emphasized the contribution of IQAC to the college's affiliation and accreditation processes, highlighting its role in upholding high academic standards.

IQAC Session during SIP2024

Dr. Anuradha taking IQAC Session

Art of Living Sessions organized during SIP-2024

The Applied Science Department organized Art of Living sessions on 16th & 19th July, 2024 i.e. on day 2 and day 5 of the student induction programme for the newly enrolled B.Tech students of all the branches. In order to help new students feel more connected to the college community, Mr. Varun Upadhayay, Regional Director, Art of Living, led informative and interactive sessions. Mr. Varun works very closely with AICTE, UGC and Ministry of Education. The purpose of these sessions was to provide students with strategies for handling stress, increasing concentration, and improving their overall health. It probably included various techniques such as deep breathing exercises, mindfulness practices, and engaging activities that encourage self-reflection and peace. During these sessions, Mr. Varun familiarized the students with the Art of Living philosophy, which focuses on achieving inner peace and living a stress-free life. These sessions proved to be extremely beneficial, equipping the new students with the necessary resources to successfully navigate the academic and social challenges that lie ahead.

Mr. Varun Upadhayay delivering the session

Art of Living Session during SIP 2024

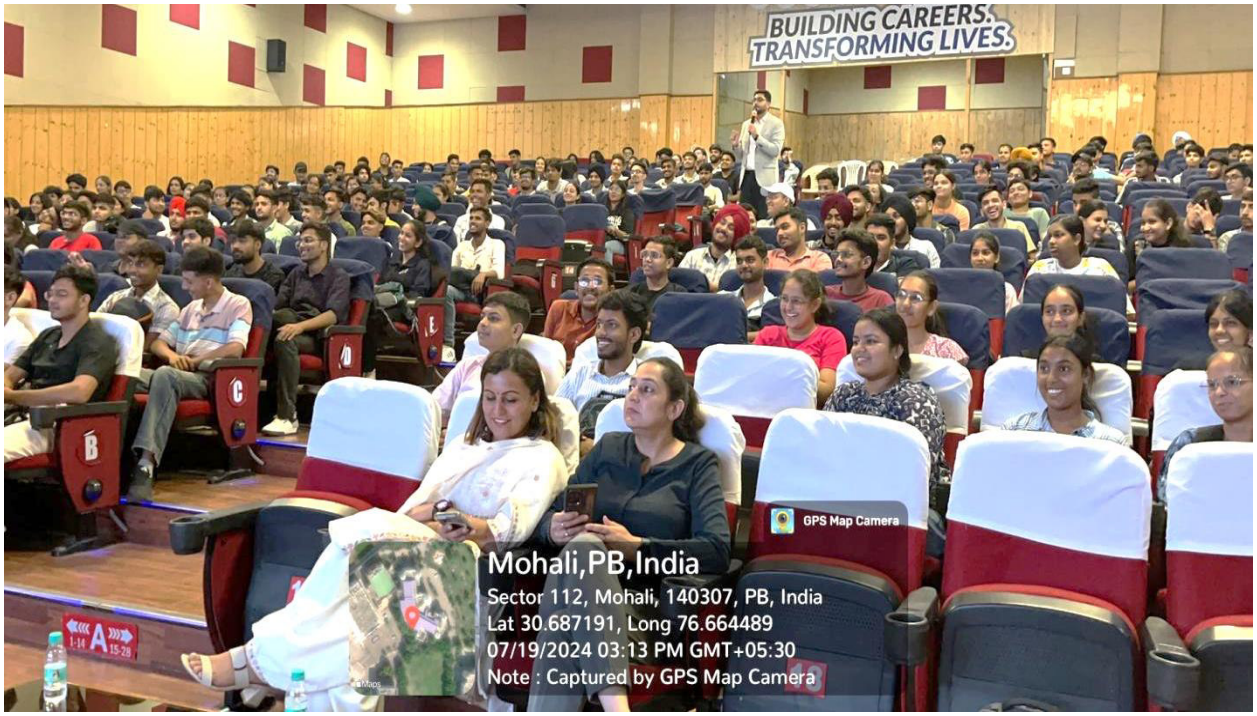
Students attending the Art of Living Session

Freshmen gained valuable insights from CEC-CGC Alumnus during SIP 2024

On Day 5 of Student Induction program i.e. on 19th July 2024, Alumni Interaction sessions were organized by Applied Sciences Department. These sessions were conducted for all the sections of B.Tech first year. In these Alumni sessions, Mr. Rohit Sharma of ECE 2016 pass-out batch was invited for interaction with the students. Mr. Rohit Sharma is presently working as Data Scientist in Paypal. The invited alumnus was full of excitement as he shared his personal stories and reflections on his time at CGC. He emphasized the unforgettable moments and valuable experiences he had during his college life. In addition, he discussed his successful placements, highlighting the positive influence that CEC-CGC Landran had on his professional trajectories. Furthermore, he offered a variety of approaches to achieve excellent academic results. He stressed the significance of staying committed to one's aspirations and tirelessly working towards them. The alumnus was extremely impressed with the wide range of job prospects available at CGC. He excitedly shared his success stories and credited his achievements to CGC. Furthermore, he promptly responded to students' inquiries.

Mr Rohit Sharma CGC's Alumnus

Alumni Interaction Session during SIP 2024



Students listening carefully to CGC Alumnus

Expanding Horizons: New students connected with CGCs International Affairs Department

During the induction program 2024, new students of B.Tech first year (all branches) had an exciting opportunity to interact with the International Affairs Department coordinator. The sessions were organized by Applied Sciences Department on day 3 and day 4 of induction program i.e. on 17th & 18th July, 2024 for different sections of B.Tech first year. These sessions were organized to introduce students to the various international opportunities available to them throughout their academic journey. Ms Saloni, coordinator of the international affairs department of CGC convened to discuss various programmes available to students, such as semester exchange, international internships, and study abroad opportunities. Students gained valuable insights into the application process and cultural considerations for venturing overseas. These interactive sessions provided an opportunity for new students to inquire, delve into their international interests, and uncover the possibilities for global learning experiences that can enhance their academic and personal growth. The speaker also informed the students about the various events organized by International Affairs department, such as international competitions, guest lectures, MUNs, debates, and global village. In addition, she highlighted CGCs partnerships with over 50+ prestigious universities worldwide.

Session with International Affairs Department during SIP 2024

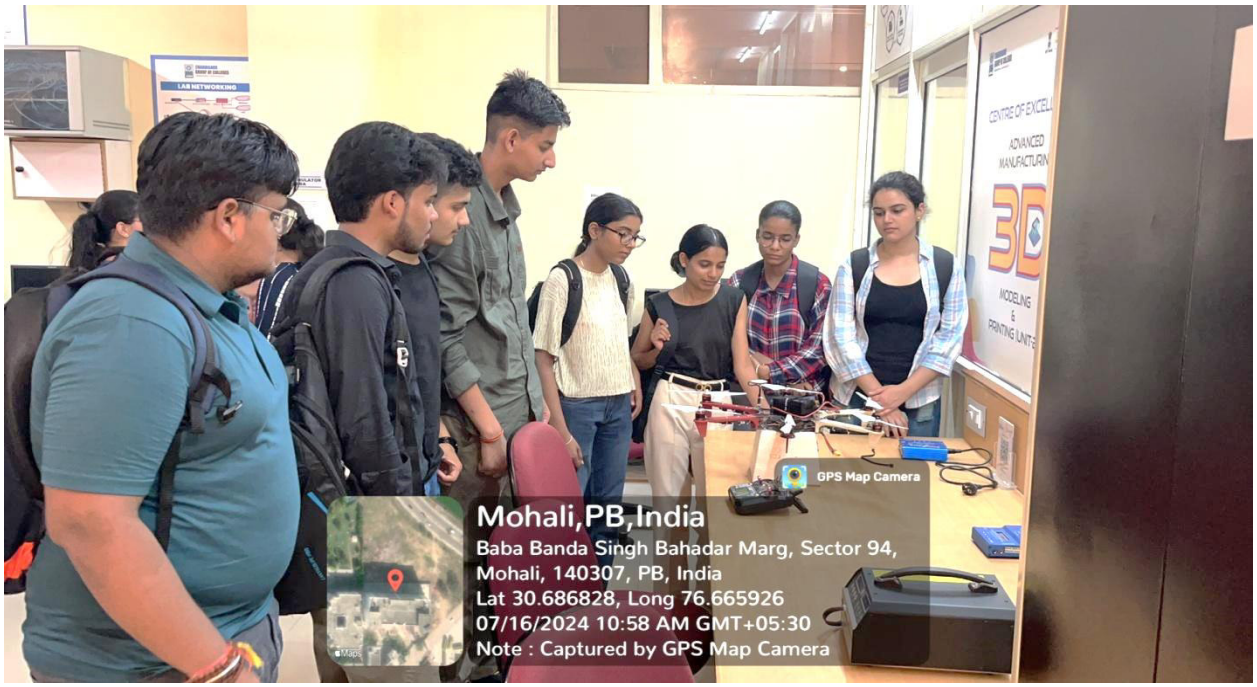
Ms. Saloni imparting information about Credit Transfer

International Affairs Session during SIP2024

B.Tech. Freshmen Embarked on Campus Tour during SIP-2024

Applied Sciences Department welcomed its new batch of B.Tech. students with a comprehensive campus tour on day 2 i.e. 16th July, 2024 as part of student induction programmme 2024. The tour aimed to familiarize the students with the institute's infrastructure, academic facilities, and various support services available to them. The students were accompanied by their Class Counselors to all the Engineering departments of the college. Additionally, students were taken to the RISE (Research) Department in order to foster their motivation in generating novel inventive ideas and research methodologies. The campus tour was a beneficial ice-breaker for the new students, enabling them to engage with their classmates and gain an understanding of the college environment. CGC Landran's dedication to delivering a comprehensive educational experience extends beyond the realm of academia. The campus tour was a testament to this dedication, ensuring that the prospective B.Tech students had a seamless transition into their new academic journey.

Campus Tour to RISE department during SIP-2024



Campus Tour to Engineering departments during SIP-2024

Campus Tour to Engineering department labs during SIP-2024

Awareness Session on Anti-Ragging Policy conducted during SIP-2024

The Applied Sciences Department organized an informative session to raise awareness about the policy against ragging on day 2 and day 5 of SIP i.e. on 16th & 19th July 2024. Students were educated about the importance of adhering to this policy. This session was designed to provide new students with the necessary information to effectively address and report incidents of harassment, creating a secure and inclusive learning environment right from the start. They were also shown an anti-ragging documentary. In addition, they were given instructions to complete the anti-ragging form as per the link provided to them. Students were cautioned that any misconduct or involvement in ragging would result in severe consequences, including possible expulsion from the college. Students were encouraged to reach out to the anti-ragging committee or higher authorities if they experience any form of misconduct from others.

Session on Anti-Ragging during SIP 2024

Students watching Anti-ragging documentary

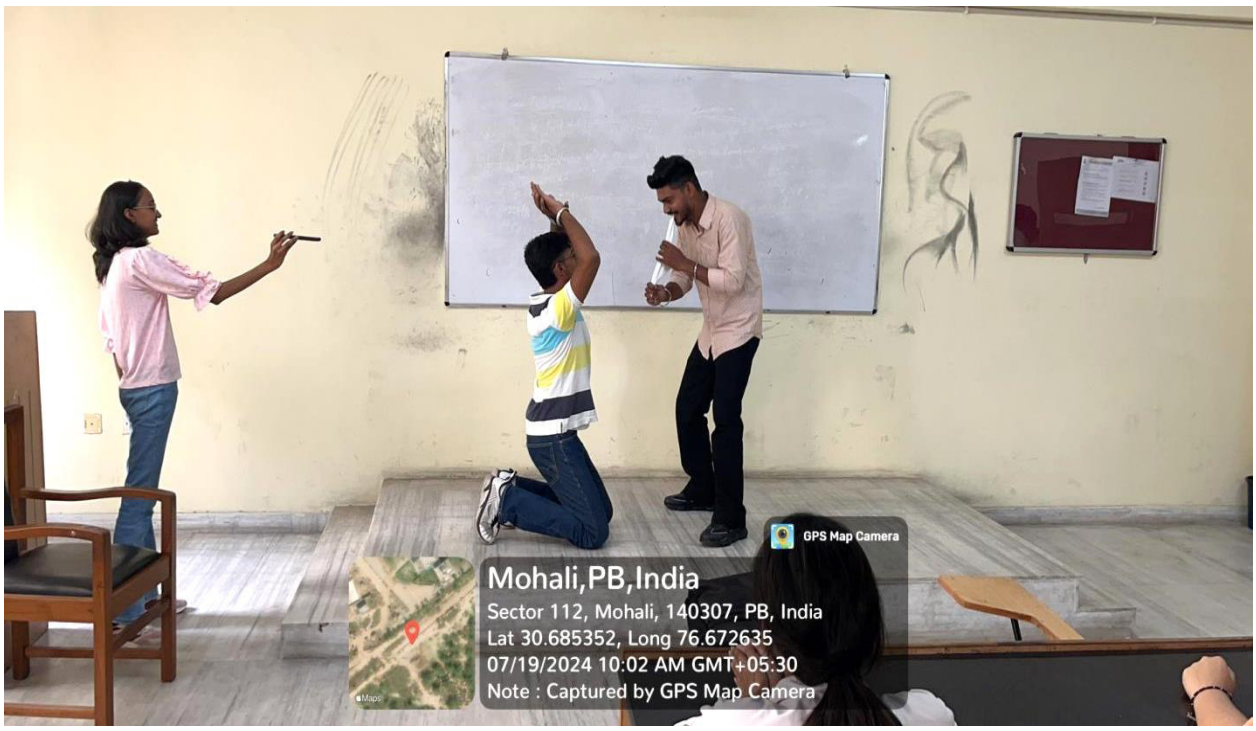
Ms. Monika Sharma taking Anti-Ragging Session

CEC-CGC embraced the Freshers' Artistic Allure during SIP 2024

Art and the artist are seldom separated, as students turned into actors, mimics, singers, and dancers in 'Artistic Allure', the activities held at Chandigarh Engineering College- CGC, Landran, on 16th & 19th July, 2024, that is Day- 2 and Day-5 of the Student Induction Program conducted for the first-year B.Tech students of all branches. The atmosphere was filled with music and emotions, as students joined hands to present One Act Plays, self-choreographed dances, amusing mimicry, and heartfelt singing. Not only the new batchmates, but also the teachers enjoyed the passions and talents of the young students. Applause and cheers went all around as the students expressed their emotions in front of their new friends and teachers. The objective of the activities was to bring out the inner artists of the new students in hopes that art will help them bond with each other and enjoy the Induction Program.

Student performing Bhangra during Artistic Allure activity

Student singing a song during Artistic Allure activity



Students performing an activity in the class

CSE Department organized Alumni talk on "Essential Technological Skills for Students"

CSE Department organized an alumni talk on "Essential Technological Skills for Students" for B. Tech 5th-semester students on August 6, 2024. Vikas Mahendra, a Senior Software Developer at Jalson Business Solutions LLP, delivered the two-hour session. He specializes in optimizing system performance, strategic project planning, and mentoring junior developers. With expertise in various software technologies and frameworks, he provides robust solutions and valuable industry insights. Drawing on his extensive experience in software development and project management, Mr. Vikas covered crucial topics, including project management, programming languages, core skills, multitasking, recession management, web development, and placement guidance.

Alumni talk on Essential Technological Skills

Group Photograph of Alumni with students

CSE Department Organized Workshop on "Blockchain"

The CSE Department organized a 3-hour workshop on "Blockchain" for B.Tech (Data Science) and B.Tech (IoT& Cyber Security with Blockchain Technology) students on August 7, 2024. This session was conducted by Mr. Udayveer Singh, a senior blockchain developer and educator with extensive experience in the field. Mr. Singh has over 3 years of experience, having worked with CoinDCX and Antier Solutions, and is currently an educator at SwapSo, an edtech startup from IIT Bombay. His expertise includes DeFi, NFTs, blockchain gaming projects, and he has also mentored various hackathons. The workshop covered a wide range of topics, including the basics of cryptocurrency, the client-server model, and peer-to-peer networks. Mr. Singh also discussed centralization versus decentralization of data, cryptography techniques, and the advantages and disadvantages of blockchain. The objective of the workshop was to educate students on blockchain technology and cryptocurrency, providing insights into the technical aspects, practical applications, and career opportunities in this rapidly evolving field.

Workshop on Blockchain by Mr. Udayveer Singh

Mr. Udayveer Singh interacting with the students

CSE Department organized Industrial Visit to Grazitti Interactive

The Department of Computer Science & Engineering at Chandigarh Engineering College (CGC), Landran, organized an industrial visit to Grazitti Interactive, Panchkula, on August 9, 2024. The visit began with an introductory session where the company's representative, Ms. Vanshika Sharma, spoke about the company's foundation and its various clients. The CRM, Salesforce tools, and quality assurance tools were discussed in the following sessions, conducted by Ms. Jaspreet Kaur Chhabra and Mr. Asheesh Nayak. Additionally, technologies such as UI, UX, MERN, MEAN, Django, CSS, and JavaScript were explained by the technical trainer, Mr. Sahil Deep Singh. The visit concluded with a company tour, where students were informed about the company's upcoming webinar. The objective of the industrial visit was to provide students with real-time exposure, familiarize them with current technological advancements, and offer insight into industrial life.

Students attending the introductory session at Grazitti Interactive

Students attending the Technical session at Grazitti Interactive

CSE Department organized Industrial Visit to CS Soft Solutions

The Department of Computer Science & Engineering at Chandigarh Engineering College (CGC), Landran, organized an industrial visit to CS Soft Solutions (I) Pvt. Ltd., Mohali, on August 13, 2024. The visit began with an introductory session where the company's representative discussed the foundation of the company and its various clients. The technical aspects were covered in the subsequent sessions, where students were also introduced to the current technological demands and the skills required. CS Soft Solutions Pvt. Ltd., a subsidiary of the CS Group, is a software development company based in India. Since its inception in 2009, the company has focused on developing innovative, user-friendly websites and offering a range of online marketing services. Its core competency lies in developing mobile applications for all types of mobile operating systems. Equipped with cutting-edge technology and expertise, the company undertakes a variety of web development activities, SEO techniques, and internet marketing services. CS Soft Solutions aims to provide customized online solutions to its business partners, enabling them to focus on their core competencies. Students gained valuable insights into the operations of CS Soft Solutions Pvt. Ltd. and its work environment. It was an enriching experience, as they learned about various technologies and the essential skills needed to thrive in the ever-evolving tech industry.

Students at the Company's premises

CSE Department organized a Technical Event “TECHTUSSLE”

The CSE Department of Chandigarh Engineering College (CGC), Landran, organized a technical event called "TECHTUSSLE" on August 22, 2024. The Phoenix Club, a technical club under the CSE Department, successfully hosted the event, which saw the participation of 186 students and was conducted in two successive rounds: Challenge 1 (Quiz Contest) and Challenge 2 (Coding Competition). The top 12 teams from the first round participated in the coding round. The top three teams secured first, second, and third positions, respectively, and were awarded cash prizes of Rs. 2000, Rs. 1500, and Rs. 1000, along with certificates.

Students Participating in Quiz round

Prize distribution to the winners

CSE Department organized Industrial Visit to Pisoft Informatics Pvt. Ltd.

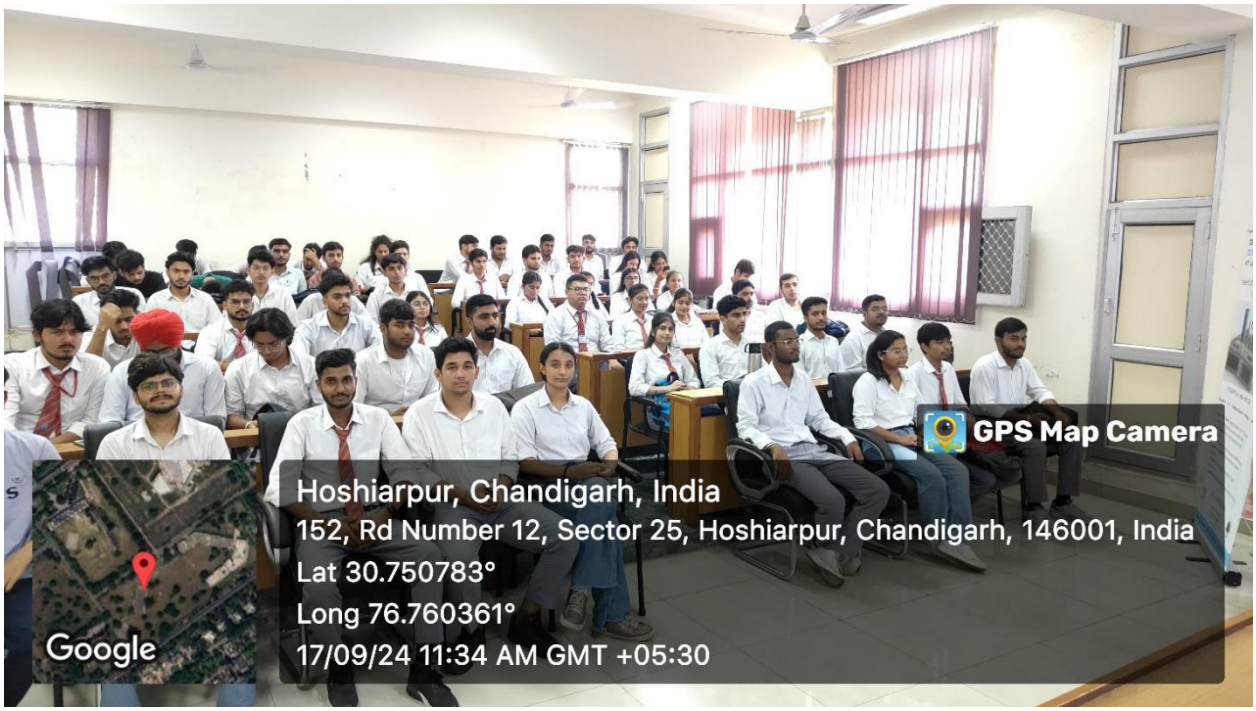
The Department of Computer Science & Engineering at Chandigarh Engineering College (CGC), Landran, organized an industrial visit to Pisoft Informatics Pvt. Ltd. on September 10, 2024. The visit began with an introductory session where the company's representative discussed the foundation of the company and its various clients. Students then gained insights into technologies such as ERP, Blockchain, HTML, and JavaScript during the technical sessions. Following the sessions, students went on a company tour and were briefed about Pisoft's upcoming projects. Pisoft Informatics Pvt. Ltd., based in Mohali (Punjab), is an IT company specializing in ERP solutions, software development, website development, design & implementation, web services, and support for ERP solutions. They cater to a variety of sectors including education, e-commerce, finance, healthcare, human resources, accounting, and tourism.

Welcome by the Pisoft Informatics team

Students with faculty members outside the company

CSE Department organized Industrial Visit to Smart Manufacturing and Industry 4.0 Lab at Panjab University

The Department of Computer Science & Engineering at Chandigarh Engineering College (CGC), Landran, organized an industrial visit to the Smart Manufacturing and Industry 4.0 Lab at Punjab University, Chandigarh, on September 17, 2024. The visit began with an introductory session where the lab's representative discussed the foundation of the lab and its standout features. Following this, students toured the lab and were introduced to ongoing projects related to IoT, blockchain technology, and data science, with a focus on the integration of AI into robotics. The Smart Manufacturing and Industry 4.0 Lab serves as a vital learning resource for students, blue-collar workers, and the community at large, driving innovation, infrastructure development, and better placement opportunities. The lab provides hands-on experience with industry-grade hardware, software, and the latest technologies, enabling students to work with cutting-edge tools such as IoT, AR/VR, smart automation, and Digital Twin technologies, which are key drivers in smart manufacturing and Industry 4.0.

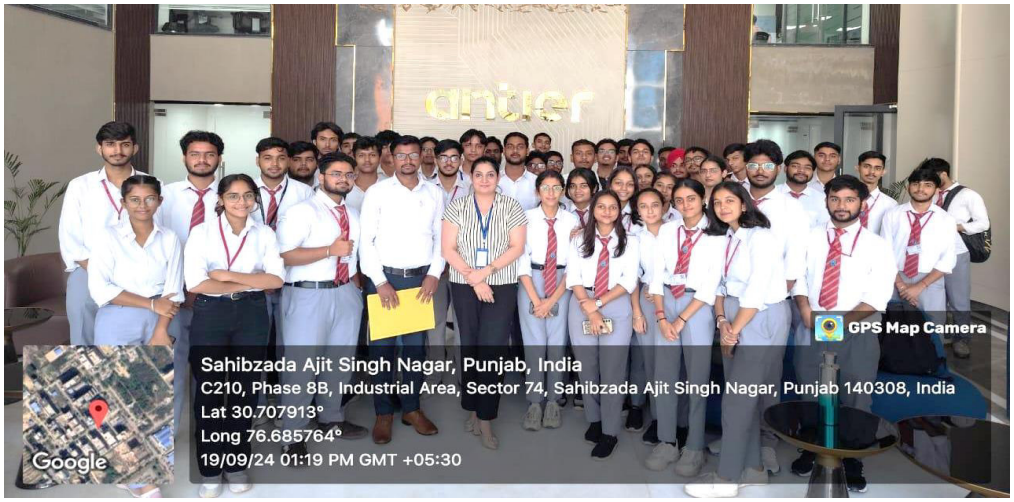


Students attending technical session at the Lab

Students exploring the projects in the Lab

CSE Department of organized Industrial Visit to Antier Solutions Pvt. Ltd.

The Department of Computer Science & Engineering at Chandigarh Engineering College (CGC), Landran, organized an industrial visit to Antier Solutions Pvt. Ltd. on September 19, 2024. The visit began with an introductory session where the company's representative provided an overview of the company's establishment and its objectives. This was followed by technical sessions that covered various domains, including an introduction to blockchain, cryptography and its features, and hashing cryptography. The session also focused on Bitcoin and how Bitcoin transactions occur. After the sessions, students went on for a company tour. For over 10 years, Antier Solutions has been helping businesses adopt new technologies to stay ahead of change. Their rigorous research, design-thinking-driven approach, and innovative solutions in strategy, consulting, technology, and operations create a roadmap for enterprises worldwide to transition from conventional technology platforms to blockchain-driven systems.



Students with faculty members inside the company

Students during the visit

Sessions on Universal Human Values conducted during SIP 2024

Universal Human Values (UHV) sessions were conducted on day 3 and day 4 of induction programme i.e. on 17th & 18th July, 2024. These sessions were conducted by the respective class counselors for all the classes of B.Tech first year which was hosted by the Applied Sciences Department. As the newly admitted B.Tech first year students embarked on their academic journey, these Universal Human Values sessions will act as their guiding light, providing them with the principles of Universal Human Values (UHV). The fundamental principles of honesty, respect, and compassion that extend beyond cultural and religious barriers, would serve as a guiding compass for ethical choices throughout their lifetime. The class counselors who delivered this lecture in their classes delved into how these values impact students' interactions with classmates, professors, and the wider community. Students were informed about the benefits of embracing UHV as it promotes a sense of justice and harmony within oneself and the world. They were also acknowledged about the complexities of upholding these values, equipping them with useful guidance to navigate challenging situations. The objective of the session was to make students realize the significance of embracing UHV, for embarking on a journey of personal growth, building stronger relationships, and contributing to a more positive and ethical future for themselves.

Students engaged in an activity during UHV Session

Class Counselor delivering lecture during UHV Session

Freshers enjoyed a day of bonding and entertainment at VR Punjab Mall

As part of student induction programme 2024, the Applied Sciences Department whisked away the freshers on a fun-filled day trip to VR Punjab Mall. The trip was organized for all the new B.Tech first year classes on day 3 and day 4 of induction programme i.e. on 17th & 18th July, 2024. This trip offered a chance for the new students to unwind, explore the vibrant shopping scene of the city, and most importantly, build strong bonds with their fellow classmates. Excitement hung in the air as the students navigated the bustling corridors and showrooms of VR Punjab mall, each student with his/her own agenda - some eager to peruse clothing stores, while others were enticed by the mouthwatering aromas wafting from the food courts. It was a day filled with happiness, thrilling discoveries, and the creation of long-lasting friendships that they hoped would continue throughout their stay at CGC.

Visit to VR Punjab Mall during SIP 2024

Group photograph outside VR Punjab Mall

Freshers partake in activities enhancing Active Learning and Team Building

A fun, intellectual, and thoughtful sessions of 'Active Learning' and 'Team Building Bingo' were held at Chandigarh Engineering College- CGC Landran, on 16th, 18th & 20th July, 2024 i.e. on Day- 2, 4, and 6 of the Induction Program 2024 conducted for the first-year B.Tech students of all branches. These activities gave the students an opportunity to learn and interact. An inclusive brainstorming and discursive session was held after reading a paragraph based on the current issues. Students collectively found out the "Muddiest Point" of the passage, which was the most difficult part for them to understand. After the session students interacted freely with the teacher and their peers about the paragraph. Along with this, the team building Bingo game proved to be a great venture to bring the new classmates together, helping them create bonds that they will cherish in the coming years. The objective of this session was to bring the students in a group and help them discuss and interact, giving them a space to express their views and thoughts.

Active Learning Session during SIP 2024

Team Building Bingo during SIP 2024

SIP 2024 provided a space for Creativity and an urge for Sustainable future

'Creative Arts' and the zeal towards a 'Sustainable Future' amalgamated in the activities held on 16th, 18th, 19th & 20th July, 2024 i.e. on Day- 2, 4, 5, and 6 of the Student Induction Program conducted for the first-year B.Tech students of all branches. Students came together to showcase their artistic skills in the activities like clay modeling, sketching, mehndi and pottery. The class environment was infused with young learners desperate to bring forth their inner artists. In accordance with the artistic theme, there prevailed a willingness to work for a sustainable future. The new joinees were soon bonded together to create a recycling station to help the environment, their new college, and their future on Mother Earth. The objective of these activities was to instill values of sustainability creativity in the new students, while having fun in the process.

Students doing Sketching during SIP 2024

New comer making Mehndi design

Clay modeling during SIP 2024

Screening of "I am Kalam" for Freshmen during SIP 2024

The Applied Sciences Department hosted a Motivational Movie Showcase on 16th & 19th July, 2024 (Day 2 and Day 5 of induction) for the newly admitted B.Tech first-year students from all branches as part of the Students Induction Program 2024. They were shown an inspirational movie "I am Kalam." This inspiring movie shares the tale of Chotu, a young boy who is tragically thrust into the world of child labour. However, he discovers a glimmer of hope and a sense of purpose as he looks up to Dr. APJ Abdul Kalam, the esteemed former President of India and a distinguished scientist. Chotu's journey showcased the incredible impact of education, determination, and self-confidence on the students. "I am Kalam" encouraged the new students to discover their own dreams and empowered them to pursue them with unwavering determination. As the students embarked on their academic journey at CEC-CGC Landran, Chotu's inspiring spirit in the movie serves as a reminder that regardless of one's background or circumstances, dreams can be achieved through perseverance and dedication. The movie's upbeat tone undeniably sparked enthusiasm among students, who thoroughly enjoyed the experience.

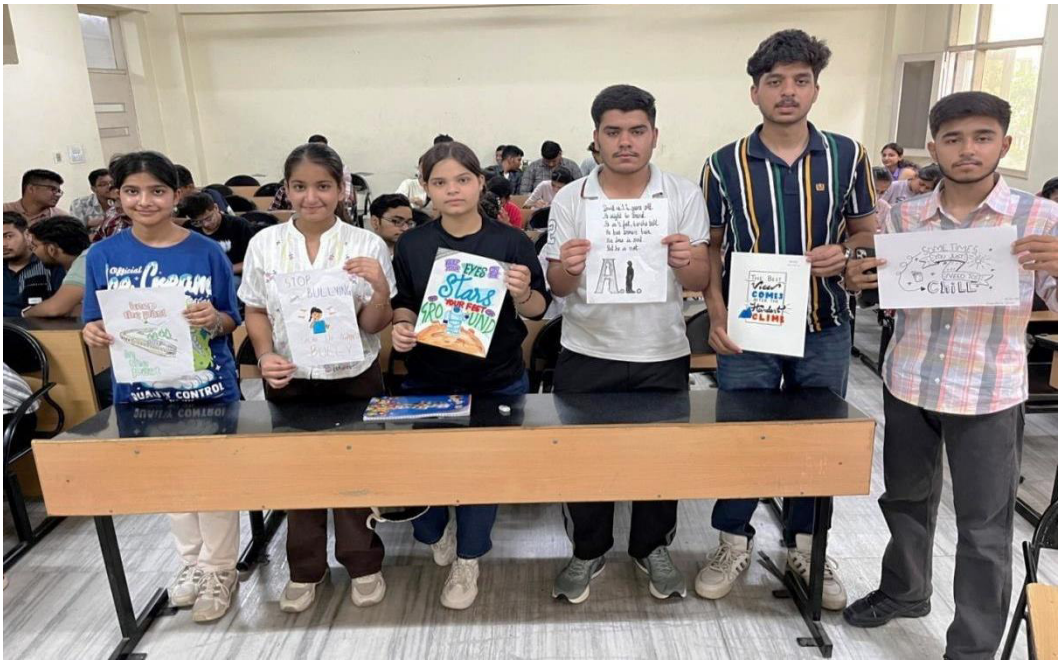
Students watching the movie during SIP2024

Motivational Movie Session

SIP 2024 showcased the Power and Magic of Words through Literary Activities

Literature and words took center stage in the literary activities held on 17th & 18th July, 2024 i.e. on day 3 and day 4 of the Student Induction Program conducted for the first-year B.Tech students of all branches. Students came together to partake in various literature-oriented activities like short scenario writing and socially charged slogan writing. The class counselors as well as the students were overwhelmed with the beauty and potential of words. While the new students wrote incredible slogans for change and social issues, their inner writers also came forth as they created short scenarios and shared them with their classmates. The objective of the literary activities were to involve students in brainstorming and creative writing exercises, thereby helping them create lasting bonds and have fun in the process.

Slogan Writing during SIP2024



New comers showcasing their slogans during literary activities

Literary Activities during SIP 2024

Students showcasing their slogans

A Gateway to Knowledge: Library session organized for new students during SIP-2024

The Applied Science Department hosted a Library session as part of the student induction programme 2024. The session was scheduled on the 6th day of the student induction programme, specifically on 20th July, 2024. The session was led by Ms. Renu Oberoi, the Chief Librarian of Chandigarh Group of Colleges. Ms. Renu offered a comprehensive overview of the CGC Landran's library resources, facilities, and services. Students were provided with an introduction to the library's digital platforms, which encompass online databases, e-journals, and digital repositories. She emphasized that making use of library resources will enable the students to utilize information technology effectively for their academic endeavours. The librarian deeply stressed the significance of maximizing library resources, providing students with guidance on search techniques, citation formats, and maintaining academic honesty. By the end of the session, students developed a comprehensive understanding of the library's significance in their academic pursuits, cultivating a passion for reading and conducting research.

Library Session during SIP 2024

Chief Librarian Ms. Renu Oberoi took Library Session during SIP 2024

Unveiling Leadership & Discipline: NCC Session conducted for New Students during SIP 2024

On Day 2 i.e. on 16th July, 2024, a dedicated NCC (National Cadet Corps) session was organized to introduce B.Tech freshers about enrolling in NCC during the student induction program 2024. The session likely began with a presentation highlighting the NCC's rich history and its role in shaping disciplined and patriotic citizens. Senior NCC cadets of the institute, smartly attired in their uniforms, addressed the new students, sharing their personal experiences and the various activities undertaken by the NCC, such as drill exercises, community service initiatives, and adventure camps. The session taken by Cadet Mohit aimed to pique the interest of new students, providing them with information on enrollment procedures and the benefits of joining NCC, like leadership training, physical fitness development, and the opportunity to participate in national events. This interactive session served as a valuable platform for new students to understand the NCC's contribution to college life and its potential for a transformative experience.

NCC Cadet Mohit interacting with new students during SIP 2024

NCC Activities video being shown during SIP 2024

Hone Your Skills-TPP Sessions empowered Freshmen during SIP 2024

On day 2 and day 3 of student induction program 2024, Training and Placement sessions were organized by Applied Science Department i.e. on 16th & 17th July, 2024 for B.Tech 1st year students. The keynote speakers, Ms. Bunny Sharma, Mr Pardeep and Ms Preetmohan (Soft Skill Trainers) gave a comprehensive introduction about the CGC Landran's Training and Placement Department (TPP) and its important role in helping students with their campus placements. The speakers guided the students on crafting compelling CVs/resumes in future that must highlight their academic achievements and relevant skills. Additionally, the speakers focused on the importance of communication style, body language, and overall self grooming. These sessions served as a valuable roadmap for new students, empowering them to confidently approach future job opportunities and chart a successful career path.

Ms. Bunny Sharma delivering TPP session

TPP Session during SIP 2024

Ms Preetmohan delivering TPP Session

Yoga Sessions sparked enthusiasm among new comers during SIP-2024

On Day 3 and Day 4 of Student Induction program, different Yoga sessions were organized by Applied Science Department i.e. on 17th & 18th July, 2024. These sessions were conducted for all the branches of B.Tech first year. Captain Vinod Jaswal, the Head of the Sports Department at CGC, conducted sessions on both days to inspire and educate students about the numerous advantages of practicing Yoga. These sessions focused on more than just physical postures (*asanas*). It provided a comprehensive overview of the ancient practice of Yoga, equipping students with strategies to handle stress, enhance concentration, and improve overall health. Capt. Vinod led the students in a series of gentle stretches and breathing exercises (*pranayama*) that are suitable for individuals of all fitness levels. The students were able to uncover the advantages of practicing Yoga, which included improvements in posture, increased flexibility, and heightened body awareness. Most importantly, these sessions equipped them with practical resources to navigate the challenges of academia and adapt to social changes. The instructor highlighted the techniques to help students find a sense of calm and presence, empowering them to navigate the demands of their everyday lives with ease.

Capt Vinod taking Yoga Session during SIP2024

Yoga session during SIP 2024

Capt Vinod highlighting the importance of Yoga

CGC Landran's Joint Registrar Interacted with the Freshers during SIP 2024

The Joint Registrar of Chandigarh Group of Colleges Mr. Balwinder Singh, came forward to interact with the freshers, in the session on the sixth day of Induction Program conducted for the first-year B.Tech students of all branches, held at Chandigarh Engineering College- CGC, Landran on 20th July 2024. The Registrar, with his kind and compassionate address, dealt with common student issues and helped them understand the procedures of the Registrar Department. He introduced various scholarship schemes provided to the students and acquainted students with the registration and admission process at University level. The objective of the session was to make the freshers aware of the workings of the College and the University, different scholarship schemes were also presented, with a thought to make student lives easier and better.

Joint Registrar delivering the session during SIP 2024

New Students attending Registrar Session

DSW Session conducted for new comers during SIP-2024

Department of Students Welfare (DSW) conducted a session for the new students on 19th, July 2024 i.e. on the fifth day of Student Induction Program. This session was delivered by Dean Students Welfare- Ms. Gagandeep Bhullar who informed the students about the various clubs that fall under DSW. Furthermore, she offered them a brief overview of the events/ activities arranged by these clubs. She passionately encouraged them to consider becoming a part of at least one of the mentioned clubs. She outlined the benefits of joining an on-campus club, emphasizing its potential for personal, social, and professional development. She elaborated that the clubs' regular activities offer students with important life lessons, promoting socialization, building confidence, and providing a new outlook on different subjects. In addition, these activities foster collaboration and create a sense of fun.

Ms. Gagandeep Bhullar DSW delivering the Session

DSW information being imparted to new students

CEC-CGC introduced ERP Software to Freshers

On Day 5 i.e. on 19th July 2024, an ERP session was organized the first-year B.Tech students of all branches. The students were informed that this cloud-based college management software will help the college and students to maximize their potential, bringing time efficiency and convenience into their daily lives. Attendance and other minute details will be recorded online for efficacy. The objective of the session was to introduce the students to the ERP system where technology and system authorities will help them keep track of their daily attendance and progress. The ERP session was delivered by Dr. Kapil Mehta.

ERP Session during SIP 2024

New Students attending ERP Session

Freshers voiced their opinions during Feedback Session of SIP-2024

To conclude the enriching student induction program 2024, a dedicated feedback session was conducted on 20th July, 2024 i.e. on the last day of Induction Program. The Session was conducted by the class counselors in which they shared a Google form with the students. The students were advised to fill the form. This interactive platform provided a valuable opportunity for students to share their candid opinions and experiences about the orientation process and induction programme. The goal of this session was to gather comprehensive feedback, allowing the institution to recognize its strengths, identify any potential weaknesses, and implement necessary improvements for future induction programmes. CEC-CGC Landran's commitment to enhancing the student experience and ensuring a smooth transition into academic life was apparent through their focus on putting students at the centre of everything they do. This session was a crucial component of the induction programme, providing incoming students with a platform to openly express their thoughts and exchange their experiences.

Class counselors telling about feedback form link

Student Induction Program-2024 drew to a successful close

Student Induction Program-2024 drew to a successful close with a grand valedictory ceremony and prize distribution function on 20th July i.e. on day 6 of induction. The closing ceremony celebrated the end of a valuable orientation and induction period aimed at welcoming the new batch of students into the academic community. The ceremony was a joyful occasion that highlighted the energy and enthusiasm of the young participants, their dedication to their studies, and the institute's dedication to nurturing their overall growth. Dr. Harpal Singh, Head of Applied Sciences Department engaged with the students and offered them good wishes for a prosperous college experience at CEC-CGC. The class counselors gave away the prizes to the winners of different events that were conducted during the Induction program. The winners of different events were:

Slogan Writing

1st Prize Drishti Aggarwal CSE-B, Sania Sharma CSE-F, Rishit Sharma ECE-C

2nd Prize Aditi CSE-A, Sunaina CSE-G, Kirti Gautam ECE-B

Clay Modeling

1st Prize Aarchie CSE-A, Riya Manshi CSE-F, Krishma AIML

2nd Prize Eva CSE-B, Priyanka Kumari CSE-E, Harsh Kumar ECE-A

Sketching

1st Prize Ananya Sethi CSE-A, Arpit Sagar RA&I, Ritu ECE-C

2nd Prize Anshika Sharma CSE-A, Kashvi IOT A, Purv Bansal CSE-DS-B

Poetry

1st Prize Abhishek Verma CSE- A, Ipshita Bhardwaj CSE-F, Shreya Sharma ECE-C

2nd Prize Dipti CSE-B, Muskan RA&I, Tushar Bansal ECE C

Dancing

1st Prize Khushpreet Kaur CSE-D, Garima RA&I, Sakshi Sharma IT C

2nd Prize Bharti Choudhary CSE B, Prachi RA&I, Subodh Kant IT C

Sustainable Future: CSE G Winner as a Class Activity

Winner receiving the 1st Prize

Winner receiving the prize during SIP 2024 Closing

ACS Club conducted awareness session for 1st year Engineering Students

An awareness session on ACS-Student Chapter Membership was organized by the American Chemical Society (ACS) Club of the Applied Sciences Department. The session took place on 11th September 2024, aimed at informing first-year Engineering students regarding the advantages and opportunities associated with ACS membership. Dr. Meena Devi, the Faculty Coordinator of the ACS Club, provided a comprehensive overview of the club to the students. The American Chemical Society (ACS) is recognized as a prominent professional organization in the chemistry sector, boasting a membership exceeding 155,000 individuals worldwide. The purpose of the awareness session was to educate participants on the benefits of ACS membership and to motivate students to become members of the club. During this session, students learnt about the advantages of ACS Membership along with the opportunities related to professional growth including conferences, workshops, and online courses. Other opportunities in relation to ACS were also discussed like networking with colleagues and specialists, employment resources and job opportunities process for joining ACS, steps for online application, details on membership fees and available payment options and ACS Membership Categories.

Awareness session on ACS-Student Chapter Membership

Expert Talk on Spectroscopic Techniques and their Applications

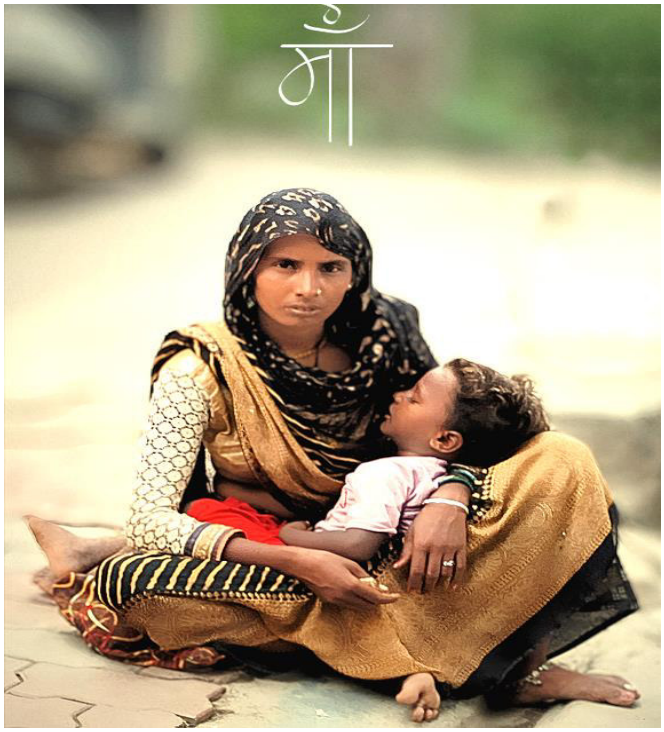
The Department of Applied Sciences organized an expert talk on "Spectroscopic Techniques and their Applications" on 17th September, 2024. The Talk was delivered by Dr. Amarjit Kaur (Prof.) Department of Chemistry, Panjab University Chandigarh. The Expert illustrated the importance of spectroscopic techniques in comprehending molecular structures, properties, and interactions, highlighting the adaptability of spectroscopy across multiple domains, such as materials science, pharmaceuticals, and biomedical research. The presentation inspired the students to explore the vast applications of spectroscopy and its potential to drive innovation in various disciplines. The session covered fundamental concepts of spectroscopy, including electromagnetic radiation, molecular interactions, and spectral analysis. Spectroscopic Techniques such as: Infrared (IR) spectroscopy, Nuclear Magnetic Resonance (NMR) spectroscopy, Ultraviolet-Visible (UV-Vis) spectroscopy etc were also discussed. The Applications part was highlighted with the applications of spectroscopic techniques in:

- Materials characterization and analysis
- Pharmaceutical drug development and quality control
- Biomedical research and disease diagnosis
- Environmental monitoring and pollution detection

Dr Amarjit Kaur interacting with students

Department of Applied Sciences hosted Photography Event

The Department of Applied Sciences, CEC-CGC, Landran hosted an online photography event "BEING HUMAN" on 20th August 2024. There were total 20 participants. The event's theme focused on the act of humanity. The stunning array of photographs submitted by the participants presented a formidable challenge in selecting the winning pictures. Kashvi from B. Tech IOT-A2 grabbed 1st position, Archit from B. Tech IT- A1 got 2ndposition and Vanshika from B. Tech CSE-G2 secured 3rd position.



Photography by the Winners

Mr. & Ms. Fresher's CEC-CGC2k24

The Department of Applied Sciences, CEC-CGC, Landran, organized the iconic event of Mr. and Miss. Fresher's 2024 on 13th August 2024. 42 Students took part in the event with zeal and vigor to show cast their talent, confidence and glamour. The Judges for the event were: Dr Harpal Singh HOD Applied Sciences CEC-CGC, Mr Ramandeep Singh, Deorda, Assistant Professor, Ms Namarta Thakur Assistant Professor, Ms Nisha, Assistant Professor. The one's who grabbed the title were: Mr. Fresher: Vasu Arora (CSE) Ms. Fresher: Muskan Malik (IOT) Runner-up Mr. Fresher : Rijot(IOT Cyber) and Runner-up Ms. Fresher: Bhumi kapoor (AI_ML)

Head of Department, Judges & Participants

Workshop on "Flutter-Build Fast and Innovative Apps", by ThinkNext

The Department of Information Technology at Chandigarh Engineering College-CGC, Landran, Mohali organized a workshop on Flutter-Build Fast and Innovative Apps on September 26, 2024, led by expert Mr. Navneet Sheoran, developer and trainer from ThinkNEXT. The event, coordinated by the Tech Roadies Club and the Institutional Innovation Council (IIC), attracted 79 participants interested in mobile app development. Scheduled from 11:00 AM to 1:00 PM in Seminar Hall, Block 2, the workshop aimed to introduce attendees to Flutter and Dart, focusing on essential concepts of mobile app development, UI/UX design principles and best practices for app optimization.

Participants engaged in interactive session

CEC-CGC's-IIC Orientation Session

The IT Department, Chandigarh Engineering College-CGC, Landran, Mohali organized an IIC Orientation Session on 25 July 2024, aimed at familiarizing students with the Institution Innovation Council (IIC) and its key functions. The event provided students with insights into IIC activities, including hackathons, patent filing and entrepreneurship, encouraging active participation in these initiatives for skill development and innovation. The orientation featured an informative session led by Dr. Amanpreet Kaur (HOD-IT, Convener IIC-CGC), who introduced students to the resources and mentorship offered by IIC, emphasizing the importance of innovation and entrepreneurship in today's fast-paced business landscape. The session also highlighted IIC's role in guiding students from idea generation to prototype development. In addition, Mr. Amaan Ansari, a student-turned-entrepreneur, shared his entrepreneurial journey, motivating students to explore startup opportunities. He discussed the startup ecosystem and the value of resilience and adaptability in business growth. The event balanced theoretical knowledge and practical advice, fostering student engagement in IIC activities. It concluded with a Q&A session, where students interacted on topics related to innovation and startups, encouraging further exploration in these areas.

Interaction of students with Mr. Amaan Ansari

Expert talk on “Artificial Intelligence & Internet of Things”

The IT department, Chandigarh Engineering College-CGC, Landran, Mohali, under the Centre of Excellence for AIOT and IIC, organized an expert talk on "Artificial Intelligence & the Internet of Things: Trends, Innovations, and Practical Applications" on 6 August 2024 at Chandigarh Engineering College, Landran. Delivered by Mr. Manmeet Singh Bhatti (author, career coach, technopreneur), the session focused on the integration of AI and IoT, exploring their transformative potential, practical applications, and future trends. Students gained insights into advanced AI models, the impact of 5G, edge computing, and emerging job opportunities. The event emphasized efficiency, decision-making and innovation through AI and IoT, concluding with an interactive Q&A session.

Interactive session of students and faculty with the expert

IT Department Infotech Club Event- “Code Quest”

The Infotech Club of IT Department at Chandigarh Engineering College-CGC, Landran, Mohali, organized a technical event titled "Code Quest" on 8th August 2024 in Wilson Block 3, conducted offline from 10:00 am to 03:00 pm. The event, which attracted 118 participants, featured three competitive rounds: a Technical Quiz on topics like data structures and algorithms, Coding Challenges requiring innovative solutions, and Group Discussions to assess communication and teamwork skills. The objective of "Code Quest" was to provide participants with a platform to enhance their technical knowledge, problem-solving abilities, and communication skills through real-world challenges. The event aimed to foster innovation, critical thinking, and collaboration while preparing students for future opportunities in the tech industry. The outcomes included improved coding knowledge, enhanced problem-solving strategies, and strengthened teamwork and communication in technical settings.

Winners of Code Quest with coordinators and organizers

Debate Competition “Oratory Olympians”

The IT Department, Chandigarh Engineering College-CGC, Landran, Mohali in collaboration with Department of International Affairs organized “Oratory Olympians”, a debate competition on 11th September 2024. The event aimed to provide students with a platform to enhance their public speaking, confidence, and critical thinking skills by engaging in discussions on global topics. Six participants took part in the debate, with the first preliminary round focusing on two controversial topics: nuclear weapons and tariffs on imported goods.

Participants giving their best

Industrial Visit to CDAC, Mohali

The IT Department, Chandigarh Engineering College-CGC, Landran, Mohali, organized an industrial visit to CDAC, Mohali on 12 September 2024, known for its contributions to cutting-edge technologies like mobile apps, machine learning, and telemedicine. The visit aimed to expose students to real-world applications of advanced technologies and provide insights into career opportunities in the tech industry. Students interacted with industry experts and learned about telemedicine through the eSanjeevani portal, mobile app development and cyber security advancements. Key speakers, including Mr. Ashwani, Full Stack Developer in Mobile App Development at CDAC, Mr. Vijay Bhatkar and Mr. Gaganpreet Singh, provided valuable knowledge on these topics. The session also covered details about Work-Based Learning (WBL) internships, bootcamps and certifications, emphasizing career growth in emerging tech fields.

Industrial Visit to CDAC, Mohali

Field Visit to Bebo Technologies, IT Park Chandigarh

The IT Department, Chandigarh Engineering College-CGC, Landran, Mohali, organized an industrial visit to Bebo Technologies in Rajiv Gandhi Chandigarh Technology Park, Kishangarh, Chandigarh on 19th September, 2024. This industrial visit to Bebo Technologies provided students with hands-on exposure to cutting-edge software development and quality assurance practices, including cloud computing, AI, DevOps, agile methodologies and CI/CD pipelines.

Industrial Visit to Bebo Technologies

Workshop on "Design Thinking, Critical Thinking and Innovation Design"

The Institution's Innovation Council (IIC) at Chandigarh Engineering College-CGC, Landran, Mohali,in collaboration with IT Department organized a Workshop on Design Thinking, Critical Thinking, and Innovation Design on 13 August 2024, which featured interactive sessions led by Dr. Dinesh Arora, Professor & Head IPR, Centre for Boudhik Sampada, Dept. of RISE, CGC Landran, Mohali and Mr. Aviraj Rohilla, Sr. Patent Associate, Centre for Boudhik Sampada, Dept. of RISE, CGC, Landran, Mohali. The workshop aimed to enhance participants' understanding of design thinking and its practical applications in innovation and problem-solving. Through engaging discussions and real-world examples, attendees learned about the user-centric approach of design thinking and the importance of choosing the right problems to solve. The event included insights on design patents, fostering a deeper understanding of the distinction between problem-based and solution-based thinking. Participants were encouraged to adopt innovative strategies, enhancing their skills in collaboration, adaptability, and creative problem-solving, crucial for success in the rapidly evolving tech landscape.

Interactive session led by Mr. Aviraj Rohilla

Interactive session led by Dr. Dinesh Arora

Mentoring Session: "To Cover the Gap Between Industry 5.0 & Academia"

CEC-Institution's Innovation Council (IIC) alongwith IT Department, Chandigarh Engineering College-CGC, Landran, Mohali, organized a mentoring session titled "To Cover the Gap Between Industry 5.0 & Academia" on 9th September 2024, featuring alumna Muskan Gupta, a Senior Data Engineer at EVIDEN - an Atos Business. The session, held in Wilson Block 3 from 2:30 PM to 4:00 PM, aimed to enhance the understanding of Data Structures and Algorithms (DSA) among third-semester students and prepare them for career opportunities by leveraging coding platforms like LeetCode. Ms. Muskan shared her insights on bridging academic knowledge with industry expectations, emphasizing the importance of mastering DSA for technical interviews and offering strategies for successful coding practice. The event attracted 120 participants and concluded with an interactive Q&A session, providing attendees with valuable career insights and motivation to engage in regular coding practice. Key outcomes included increased awareness of industry trends, improved DSA knowledge, and strategies for job preparation in the tech industry.

Expert delivering the session

Internal Smart India Hackathon 2024

The Internal Smart India Hackathon 2024 was held offline on 13th September 2024 at Chandigarh Engineering College-CGC, Landran, Mohali. This nationwide initiative encourages students to address real-world problems with innovative solutions, fostering a culture of product innovation and problem-solving. More than 200 teams from CGC participated, and after a rigorous evaluation in the Screening Phase of SIH 2023, 50 teams were shortlisted for the internal event. The innovative prototypes from 113 teams were judged by industry experts, alumni, and CGC faculty. These teams competed to represent CGC at the national level in the Grand Finale of SIH 2024.

SIH Inauguration by the Dignitaries

Out Reach Activity- Awareness Event "Drug addiction and its consequences"

On 13th September 2024, the IT Department under Unnat Bharat Abhiyan (UBA) Cell of Chandigarh Engineering College-CGC, Landran, Mohali, organized an awareness event in Sawara village focused on drug addiction and its consequences. The event featured a detailed skit that highlighted the realities of addiction, its emotional, physical, and social impacts, and offered information on support resources like help lines and rehabilitation centers. The skit was well-received by the villagers, with the Sarpanch of the village presenting an appreciation letter to the UBA Cell for their efforts. The event involved 12 college students, 15 volunteers and 1 faculty member, under the coordination of Mrs. Neha Chhabra.

Students and Volunteers ready for the event

Outreach Activity-“Drug Abuse –Towards a Healthy Future”

On September 27, 2024, IT Department along with DSW Cell of Chandigarh Engineering College-CGC, Landran, Mohali organized an event titled "Drug Abuse – Towards a Healthy Future" at Government Middle School in Sawara Village, aimed at raising awareness about drug addiction among students. The event featured a detailed skit that educated attendees on the consequences of drug abuse and provided information about available support resources, such as help lines and rehabilitation centers. Coordinated by Assistant Professors Mrs. Neha Chhabra and Mrs. Harjinder Kaur from IT Department, the initiative received prior approval from the college’s Director-Principal and Campus Director, with support from Dr. Amanpreet Kaur, H.O.D. of IT. A total of 27 participants attended, assisted by 12 student coordinators and two faculty members to ensure smooth execution. The skit was well-received by students, teachers and the Principal, who praised its depth and detail, expressing a desire for similar events in the future. Overall, the event successfully facilitated discussion on the serious issue of drug addiction, emphasizing the importance of ongoing awareness and education within the community.

Volunteers and faculty interacting with the school Principal

Induction Session of NIPM Student Chapter and The Future of HR: AI-Driven Solutions For A Better Workplace

MBA Department organized an Engaging and Innovative induction session and expert talk in association with National Institute of personnel Management (NIPM) on 06th august,2024. The honorable guests for this event were Ms. Deepti Rishi HR Head-Escalon business services Pvt. Ltd., Mr. Harsh Logani, HR Manager, Escalon business services Pvt. Ltd., Mr. SP Bansal NC member North chapter NIPM Northern Region, Mrs Renu RP Singh Chairperson Punjab Chapter, Mr. Ajay Bakshi Vice Chairman NIPM Punjab Chapter, Ms. Ritu Nag Conver PR committee, Ravinder Chadha Chairperson& Pooja Nayar Adv. EC member.

Induction Session of NIPM Student Chapter and The Future of HR

NIPM student Chapter Induction Session of HR club Students

MBA Department organized Standards Writing Competition

MBA Department in association with Bureau of Indian Standard (BIS), Chandigarh organized a 'Standard Writing Competition' on 18thSeptember, 2024. The aim of this event was to create awareness about 'Standards' and its significance in our lives. The resource person Mr Suresh Jain from BIS, Chandigarh briefed the students regarding different types of standards published by BIS such as products, methods of tests, Code of practices, Service Standards etc. With some common examples of day-to-day life, they explained importance of standards to the students. Mr Jain guided the students on structure of an Indian Standard covering classes such as Foreword, Scope, References, Raw Materials requirements, finished product requirements, methods of sampling and testing, packaging & marking requirements etc.

Mr Suresh Jain from BIS, Chandigarh briefing the students

Industrial Visit to Highway Industries, Ludhiana

MBA Department organized an industrial visit on 20th September, 2024 to Highway Industries, Ludhiana**,** Punjab. The students were given a guided tour of the manufacturing facility, showcasing various production lines. A senior manager delivered a presentation on the company's history, vision, and operational strategies. Discussion on supply chain management, quality control, and workforce management highlighted the complexities of running a successful manufacturing business.

Students for Industrial visit at Highway Industries, Ludhiana, Punjab

Industrial Visit to HF Super-Chanakya Dairy Plant

MBA Department conducted an Industrial visit for MBA students at HF Super Plant situated at Mandi Gobingarh, Fatehgarh Sahib, Punjab on 26th September, 2024. Students first visited Bakery plant where they were observed how the various bakery products are made from the scratch. Students then visited other plant which was Dairy plant where students find out whole process of collection of milk and various products which manufactured there.

Students at Industrial Visit to HF Super-Chanakya Dairy Plant

Expert talk on “From Concept to Creation: The Power of Computer-Aided Design”

The Mechnorobs Club of the Department of Mechanical Engineering, CEC-CGC, Landran, organized an expert talk titled “From Concept to Creation: The Power of Computer-Aided Design” on July 25, 2024. The session was conducted by Mr. Pritam Prakash from P2P Analysis and Solutions and saw participation from around 55 students. Mr. Prakash introduced the students to cutting-edge trends and innovations in engineering design and analysis. He also explored future advancements in CAD technology, highlighting the role of artificial intelligence, virtual reality, and collaborative design platforms. The informative and interactive session concluded with a feedback and Q&A session between the students and the speaker.

Expert talk delivered by Mr. Pritam Prakash

Expert talk on “Innovations in Additive Manufacturing: Shaping the Future of Production”

The Department of Mechanical Engineering at CEC-CGC Landran organized an expert talk on "Innovations in Additive Manufacturing: Shaping the Future of Production" on August 1, 2024. Dr. Charanjit Singh Kalra from Modern Manufacturers, Ambala, delivered the session and demonstrated prototypes created using this cutting-edge technology. The event was highly successful, offering participants an in-depth understanding of the latest trends, technologies, and applications in additive manufacturing.

Expert talk on Innovations in Additive Manufacturing

Industrial Visit to “Nahar Industrial Enterprises Limited”

The Department of Mechanical Engineering at CEC-CGC, Landran, organized an industrial visit to Nahar Industrial Enterprises Limited on August 9, 2024. This visit provided students with a unique opportunity to gain first-hand insight into the textile industry. Nahar Industrial Enterprises, a leading name in the sector, is renowned for its state-of-the-art manufacturing facilities and focus on quality. During the visit, students were introduced to the spinning process, where raw fibers are transformed into yarn using advanced machinery. The technical focus of the visit offered a detailed exploration of the technological and operational processes involved in textile manufacturing, bridging the gap between theoretical knowledge and practical application.

Group photo of students during their visit

Faculty Development Program on “Advanced Research Methodologies: Tools, Techniquesand Best Practices”

The Department of Mechanical Engineering at Chandigarh Engineering College-CGC Landran organized a Faculty Development Program (FDP) on "Advanced Research Methodologies: Tools, Techniques, and Best Practices" from July 1 to July 5, 2024. This event included expert-led sessions and interactive discussions, focusing on innovative research methodologies. The diverse panel of distinguished speakers included Prof. Harmesh Kumar from UIET, Panjab University, Chandigarh; Dr. Rajan Swami, Associate Professor at Chitkara University; Dr. Balwinder Singh, Joint Director at CDAC Mohali; Prof. Sarbjit Singh from PEC, Chandigarh; and Prof. Sanjeev Kumar, Head of the Department of Mechanical Engineering at PEC, Chandigarh enriched the participants with their knowledge. The FDP aimed to enhance the research capabilities of faculty members, fostering a culture of high-quality research and contributing to the academic excellence of the institution. Participants gained proficiency in using LaTeX for writing professional research papers and learned effective strategies for producing impactful research work.

Felicitation of Chief Guest at Inauguration Ceremony of FDP

Group Photographs of the participants after the valediction of FDP

Hands-On Workshop on “MATLAB Essentials”

The Department of Mechanical Engineering at CEC-CGC Landran organized a workshop on "MATLAB Essentials: A Hands-On Workshop for Beginners" on August 29, 2024. The workshop focused on building foundational MATLAB skills, enhancing participants' problem-solving abilities and confidence through practical exercises. Attendees gained a thorough understanding of MATLAB's interface, commands, and basic programming functions, enabling them to perform essential computational tasks. Through hands-on exercises, participants applied MATLAB to real-world scenarios, boosting their analytical and computational skills. The workshop encouraged and inspired participants to use MATLAB independently, equipping them for advanced studies or applications in their respective fields.

Dr. Ritula Thakur conducting the workshop and engaging with the students

ECE Department organized One week Faculty Development program on Next Generation Communication Networks

ECE department organized one week faculty development program on Next Generation Communication Networks in collaboration with Netar. AI from 8th July to 12th July 2024. There were total 45 participants from CGC Landran, CGC Jhanjeri, Chandigarh University and Chitkara University. Er. Ravinder Kumar (Indian Telecommunications Service), Deputy Director General, DoT (Department of Telecommunications) Punjab was the Chief Guest and Er. Jagraj Singh, Director (Technology), DoT Punjab was the Guest of Honor for the inaugural session of the FDP. The programme progressed with the inaugural lecture at 10:30 am by Er. Ravinder Kumar (ITS) in which he mainly focused on the Evolution of wireless technologies 1G to 5G in mobile communication, comparison of 5G and 6G networks, concepts of IOT and Industrial revolution 4.0 during their keynote addresses. The distinguished experts were Dr. Balwinder Dhaliwal, Associate Professor NITTTR Chandigarh., Dr. Simranjit Singh Associate Professor PEC (Deemed to be university) Chandigarh, Mr. Arjun Nandal and Mr. Gaurav Gandhi Co-founders of NETAR.AI for various FDP sessions.

Introductory Speech by Er. Ravinder Kumar

Welcome of Chief Guest and Guest of Honor by Dr. Vinay Bhatia

The FDP was concluded successfully with the felicitation of expert by Dr. Vinay Bhatia, Professor & Head, ECE Department. The final vote of thanks was given by Dr. Bhawna Tandon, Professor in ECE Department of CEC-CGC, Landran.

Group photograph of participants

ECE Department organized Industrial Visit to Wonder Automation Pvt. Ltd

Department of Electronics and Communication Engineering organized an Industrial visit to "Wonder System India Pvt. Ltd.", Mohali on 25.07.24 for the 3rd semester students of ECE and it was well coordinated by faculty, Dr Mandeep Singh and Mr. Shankarlal. The basic thrust of conducting this industrial visit is to provide maximum technical exposure to students about the widest range of training programs like Industrial automation, PLCs, SCADA and many more.

Industrial Visit to Wonder Automation Pvt. Ltd

ECE Department organized Industrial visit to CS Soft Solutions

The Department of ECE organized an Industrial Visit on 29.07.2024 to CS Soft Solutions, Mohali for 3rd year students and it was well coordinated by faculty, Dr. Mohit and Mr. Amanpreet. The visit gave valuable insights to students about UI design, Mobile application, Web development, Enterprise application, and Digital Marketing along with support and maintenance tips.

Industrial visit to CS Soft Solutions, Mohali

ECE Department organized Industrial visit to Wonder system India Pvt. Ltd.

Department of Electronics and Communication Engineering organised an Industrial visit to "Wonder System India Pvt. Ltd.", Mohali on 30.07.24 for the 3rd semester students of ECE. This industrial visit was organized to provide maximum technical exposure to students about widest range of training programmes like Industrial automation, PLCs, SCADA and many more. An expert lecture was also planned by industry expert of Wonder System Mr. Kulwinder Singh who enlightened the students about the relevance, importance and applications of various equipments including PLC, AC/DC drives and HMI.

Students group photo before Industrial Visit

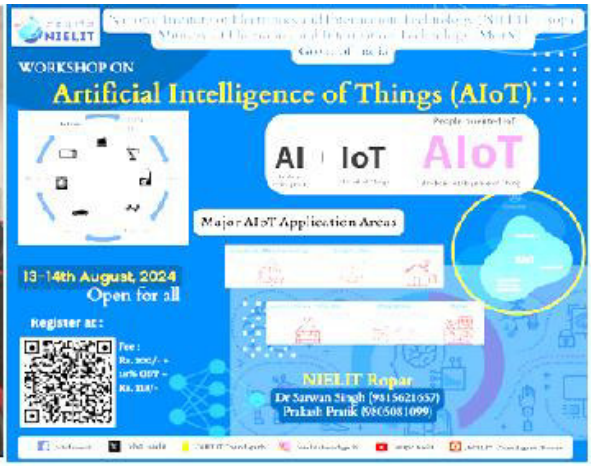
Industrial Visit to Wonder Automation Pvt. Ltd

ECE Department organized Industrial visit cum workshop at NIELIT Ropar

ECE department organized an industrial visit to NIELIT Ropar on 13.8.24 and 14.8.24 for students of 3rd sem and 5th sem. The industrial visit was scheduled for the students to enlighten them about the practical industry experience. Also, two hours workshop was conducted on Artificial intelligence of things (AIOT) on 13.8.24 and 14.8.24. This workshop was organized by National Institute of Electronics and Information Technology (NIELIT), Ropar.

Industrial Visit to NIELIT Ropar

The leanings from the visit include the evolution in the field of electronics in the past few years and to get an insight about AI and IoT. It was indeed a great opportunity to learn and up skill from the real work environment. The students were encouraged to work on projects and solve real life problems. Notably, the backend of all the government hospitals, electricity and water bill processing is now known to the students.



Workshop on Artificial intelligence of Things(AIoT)

ECE Department organized Expert talk on "Embrace Prospects, Attain Success"

An Expert talk was organized on 21.8.24 by the Department of Electronics and communication Engineering. The talk was delivered by Mr. Aditya Nanda, Head of Sales-India at INSPERA. He discussed how Continuous Learning, Networking, Innovation, Professionalism, Effective Communication, Problem-Solving Skills can help one to stand out in placements and corporate sector.

Guest of Honor Mememto presented to the Expert

Expert Talk by Mr. Aditya Nanda Head of Sales -India at INSPERA

ECE Department organized Workshop on IPR and Management

The workshop on IPR and Management was organized by ECE department's Institution's Innovation Council (IIC) in collaboration with Techcomm Professional Society (TPS) on 27.8.24, specifically designed for students to explore and engage with the latest advancements in electronics and communication. Dr. Chetan Manchanda, Joint Director CDAC, Mohali was the speaker in this workshop.

Dr. Chetan Manchanda Joint Director CDAC, Mohali

Industrial visit to PUNCOM, Punjab Communications Limited

ECE department organized an industrial visit to PUNCOM, Punjab Communications Limited, Mohali dated 28.8.24 for students of 3rd sem ECE. PUNCOM Pvt. Ltd. is a leading manufacturer and supplier of Telecommunication and IT equipment and solutions in India. In this visit, the students came to know about Voice/Data Multiplexers, Power Plants, Optical/Transmission Equipment and PLC.

Industrial visit to PUNCOM, Punjab Communications Limited

ECE Department organized Workshop on Swasthya and Shiksha Abhiyan under UBA

This workshop was organized under Unnat Bharat Abhiyan (UBA) by the Department of Electronics and Communication on 20.9.24. The workshop was organized to make the villagers and the children of Saidpur Village aware about the effect of good health and hygiene practices on their life. The UBA cell also organized a session in the Government high school of Saidpur village which included various informative and interactive activities for children like future discussion, introduction to AI, stress management, Quiz and many more.

UBA Activity: Workshop on Swasthya and Shiksha Abhiyan

Awareness Session on on Swasthya and Shiksha

ECE Department organized Thrust 2k24

ECE department's TPS (Techcomm Professional Society) in collaboration with IIC (Institution's Innovation Council) organized Thrust 2K24 on16.9.24. This event served as a platform to highlight groundbreaking ideas and technical ingenuity across various domains. Participants presented their innovative projects through visually appealing posters and live demonstrations, showcasing the creative problem-solving and technologies advancements. The event aimed to foster a spirit of collaboration and knowledge sharing, while also encouraging participants to explore emerging technologies and industry trends.

Students Participating in Thrust 2K24

ECE Department organized Expert Lecture on Idea Generation and Validation through Innovation and Technology on 26.9.24

The Department of ACIC RISE at CGC, Landran in association with Institution of Electronics &Telecommunication Engineers–Student Forum (IETE-SF) that falls under Department of Electronics and Communication Engineering organized an Expert Lecture on Idea Generation and Validation through Innovation and Technology by Dr. Surender Singh Saini, Senior Principal Scientist, CSIR-CSIO, Chandigarh.

Interaction of students with Expert

Awareness session on Renewable Energy and its benefits

ECE Department conducted a visit to Village Sayadpur, Kharar, SAS Nagar, Punjab as Pre parivartan activity on 30.9.24. During the activity a solar panel-based light was donated and a skit was also performed by our students to raise awareness about renewable energy and its benefits for the community.

Awareness Session on renewable energy and its benefits

Solar panel-based light donated to Villagers

The Dawn of India's semiconductor Era

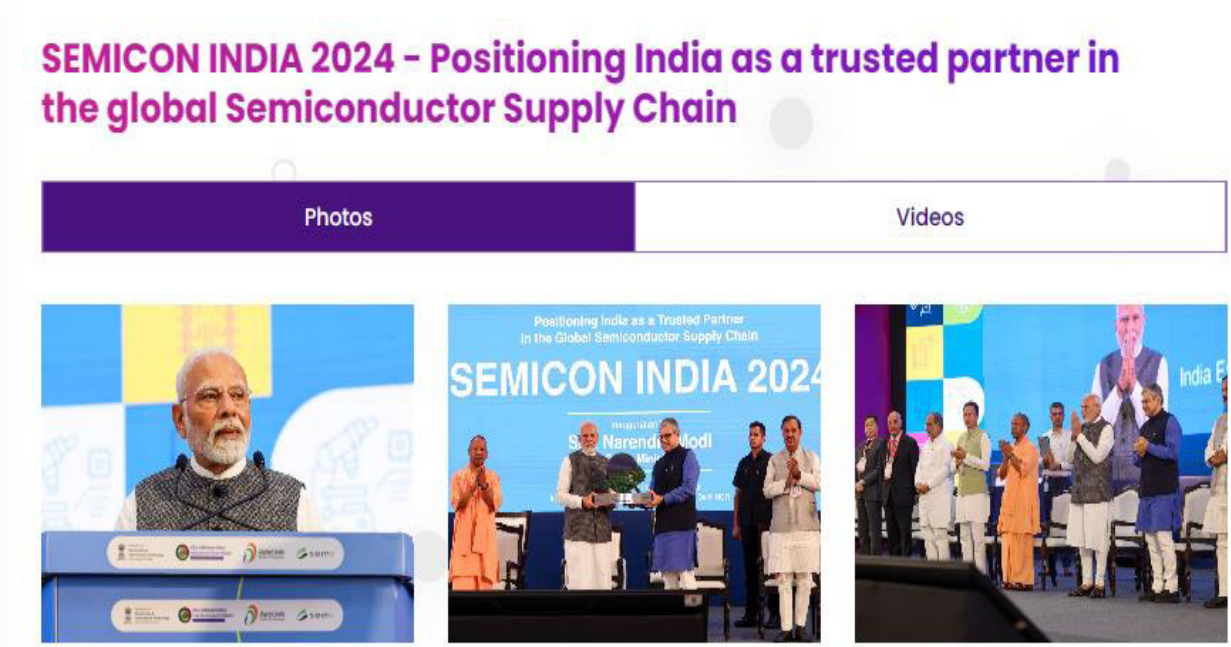
Article by: Dr. Amkur Singhal
Professor, ECE Department

The demand for semiconductors has experienced a notable surge in recent years, driven by factors such as the widespread adoption of 5G technology, growing popularity of cryptocurrency mining necessitating a higher quantity of processing units, and the government's persistent efforts towards digitalization.

Drawing from the lessons learned during the pandemic, the industry is also focused on developing systems that can mitigate the impact of unforeseen events and disruptions. Furthermore, strained relations between the United States and China have also contributed to the supply shortage, as China is a major chip manufacturer.

Over the past couple of years, India has already started boosting its semiconductor industry with the launch of an incentive scheme of Rs, 76,000 crores in December 2021. In an effort to fulfill the mission of the union government, the Indian Semiconductor Mission (ISM) was formed, which aims to build a vibrant semiconductor and display ecosystem. Apart from that, state governments such as Gujarat, Odisha, Tamil Nadu, and Uttar Pradesh also unleashed their own semiconductor policy to grow the industry. According to the media reports, the Indian semiconductor industry is expected to surpass 64 billion by 2026, while the Government of India has aimed to double this growth by 2030, achieving the domestic chip-making industry valuation at US$ 110 billion and securing at least a 10% share in the global semiconductor market.

Recognizing the significance of the semiconductor industry, the Indian government has implemented various measures and policies. The **'Make in India'** initiative, initiated in 2014, aims to boost manufacturing in India and establish the country as a global manufacturing hub. Several initiatives have been launched to promote semiconductor production, including the **Production Linked Incentive (PLI)** scheme for the electronics sector. This scheme offers a $1.7 Bn incentive package for companies establishing semiconductor manufacturing facilities in India, making it a groundbreaking initiative. This new policy will not only benefit semiconductor companies but also generate indirect and specialized job opportunities. Furthermore, the government of India organizes The Semicon India 2024 which is a key event focused on India's growing semiconductor ecosystem. Industry leaders, policymakers, and global semiconductor companies comes together to address challenges in chip manufacturing, supply chain resilience, and technology advancements. It is expected that a large number of Jobs will be created in the semiconductor field.



Semicon India 2024

Live streaming of Semicon India 2024 being watched by Faculty & Students

Android Control Fighter Tank

Article by: Dr. Bhawna Tandon

Professor, ECE Department

A robot is a machine especially one programmable by a computer capable of carrying out a complex series of actions automatically. Robots can be guided by an external control device or the control may be embedded within. Robots may be constructed on the lines of human form, but most robots are machines designed to perform a task with no regard to their aesthetics.

Robots can be autonomous or semi-autonomous and range from humanoids such as Honda's Advanced Step in Innovative Mobility (ASIMO) and TOSY's TOSY Ping Pong Playing Robot (TOPIO) to industrial robots, medical operating robots, patient assist robots, dog therapy robots, collectively programmed swarm robots, UAV drones such as General Atomics MQ-1 Predator, and even microscopic nano robots. By mimicking a lifelike appearance or automating movements, a robot may convey a sense of intelligence or thought of its own. Autonomous things are expected to proliferate in the coming decade, with home robotics and the autonomous car as some of the main drivers.

The branch of technology that deals with the design, construction, operation, and application of robots, as well as computer systems for their control, sensory feedback, and information processing is robotics. These technologies deal with automated machines that can take the place of humans in dangerous environments or manufacturing processes, or resemble humans in appearance, behaviour, or cognition. Many of today's robots are inspired by nature contributing to the field of bio-inspired robotics. These robots have also created a newer branch of robotics, soft robotics.

Robot

TYPES OF ROBOTS:

Nowadays, robots do a lot of different tasks in many fields and the number of jobs entrusted to robots is growing steadily. That's why in my opinion one of the best ways how to divide robots into types is a division by their application. There are:

Industrial robots - Industrial robots are robots used in an industrial manufacturing environment. Usually these are articulated arms specifically developed for such applications as welding, material handling, painting and others. If we judge purely by application this type could also include some automated guided vehicles and other robots.

Domestic or household robots - Robots used at home. This type of robots includes many quite different devices such as robotic vacuum cleaners, robotic pool cleaners, sweepers, gutter cleaners and other robots that can-do different chores. Also, some surveillance and telepresence robots could be regarded as household robots if used in that environment.

Medical robots - Robots used in medicine and medical institutions. First and foremost - surgery robots. Also, some automated guided vehicles and maybe lifting aides.

Service robots - Robots that don't fall into other types by usage. These could be different data gathering robots, robots made to show off technologies, robots used for research, etc.

Military robots - Robots used in military. This type of robots includes bomb disposal robots, different transportation robots, reconnaissance drones. Often robots initially created for military purposes can be used in law enforcement, search and rescue and other related fields.

Entertainment robots - These are robots used for entertainment. This is a very broad category. It starts with toy robots such as Robosapiens or the running alarm clock and ends with real heavyweights such as articulated robot arms used as motion simulators.

Space robots - I'd like to single out robots used in space as a separate type. This type would include robots used on the International Space Station, Canadarm that was used in Shuttles, as well as Mars rovers and other robots used in space.

Hobby and competition robots - Robots that you create. Line followers, sumo-bots, robots made just for fun and robots made for competition.
In military services, there are some areas in which some of the tasks involve greater risk and danger, and therefore, those tasks must be performed without military personnel, solely by the robots.

Military Tank

This is used to detect the landmines and fire the target. Landmines hid under the earth origins risk to the lives and influence the economy of the nation. Discovery and eliminating of these by hand is a dangerous task, which may occasionally cause accidents. In such situations, robots help in the discovery of the landmines and also any other metals present in the ground.

This article gives an overview of the "Metal Detector Robot" that uses RF technology. The proposed system comprises a transmitter (Tx) and receiver (Rx) circuit. The Tx circuit transmits the commands necessary to work the robot. The Rx circuit receives the commands through RF and moves the robot according to the received commands. A "metal detector" is interfaced to the microcontroller in the receiver end. Thus, when any metal is noticed the robot ends there and generates a buzzer sound.

Here is a war field land rover that alerts on sensing planted land mine ahead controlled remotely using primarily the RF mode. The RF remote control has the advantage of adequate range (up to 200 meters with proper antennae) besides being unidirectional. On the other hand, an IR remote would function over a limited range of about 5 meters and the remote transmitter has to be oriented towards the receiver module quite precisely.

Clone Detection: A Crucial Tool for Software Quality

Article by: Mr. Amandeep Ummat
Assistant Professor, CSE Department

In the ever-evolving landscape of software development, ensuring code quality and maintainability is paramount. One of the significant challenges faced by developers is the presence of code clones – identical or nearly identical code segments that appear in multiple locations within a software system. While seemingly harmless at first glance, code clones can have far-reaching consequences, including increased complexity, reduced maintainability, and even security vulnerabilities. To mitigate these risks, clone detection techniques have emerged as indispensable tools for modern software development practices.

Understanding Code Clones

Code clones can be classified into two primary categories: exact duplicates and near-duplicates. Exact duplicates are identical sequences of code, often resulting from unintentional copying or pasting. Near-duplicates, on the other hand, exhibit minor variations such as variable name changes, formatting differences, or slight algorithmic modifications. While these variations may not be immediately apparent, they can still pose challenges for maintenance and testing.

The Consequences of Code Clones

The presence of code clones can have several detrimental effects on software quality:

- **Increased Complexity:** Clones introduce redundancy into the codebase, making it more difficult to understand and maintain. This can lead to increased development time and reduced productivity.
- **Reduced Maintainability:** When a change needs to be made to a piece of code, it must be applied to all its clones. This can be time-consuming and error-prone, especially if the clones are scattered throughout the system.
- **Security Vulnerabilities:** Clones can introduce security risks if vulnerability is discovered in one instance and not addressed in others. This can leave the entire system exposed to potential attacks.
- **Intellectual Property Issues:** In some cases, code clones can lead to intellectual property disputes if the cloned code is copyrighted or patented.

Clone Detection Techniques

To address the challenges posed by code clones, various detection techniques have been developed:

- **Signature-Based Techniques:** These techniques create a signature for each code fragment and compare them to identify duplicates. While efficient, they may struggle with near-duplicates.

- **Token-Based Techniques:** Token-based methods break code into smaller units (tokens) and compare them to detect similarities. They are more robust than signature-based techniques but can be computationally expensive.
- **Tree-Based Techniques:** Tree-based approaches represent code as abstract syntax trees and compare their structures to identify clones. They are effective for detecting near-duplicates but can be complex to implement.
- **Semantic-Based Techniques:** Semantic-based techniques analyze the meaning of code rather than just its syntactic structure. They can detect clones that are functionally equivalent but syntactically different.

Benefits of Clone Detection

The use of clone detection techniques offers several advantages:

- **Improved Code Quality:** By identifying and eliminating clones, developers can create cleaner, more maintainable codebases.
- **Reduced Development Time:** Clone detection can help to streamline the development process by reducing the time spent on code maintenance and bug fixing.
- **Enhanced Security:** By addressing vulnerabilities in all cloned instances, clone detection can help to improve the overall security of a software system.
- **Intellectual Property Protection:** Clone detection can help to protect intellectual property by identifying unauthorized code reuse.

In conclusion, clone detection is a critical tool for ensuring the quality and maintainability of software systems. By effectively identifying and addressing code clones, developers can mitigate the risks associated with redundancy, complexity, and security vulnerabilities. As software development continues to evolve, the importance of clone detection techniques will only grow.

Emotional Intelligence

Article by: Ms. Smriti Verma
Assistant Professor, MBA Department

Emotional intelligence refers to the ability to identify and manage one's own emotions, as well as the emotions of others. Emotional intelligence is generally said to include a few skills: namely emotional awareness, or the ability to identify and name one's own emotions; the ability to harness those emotions and apply them to tasks like thinking and problem solving; and the ability to manage emotions, which includes both regulating one's own emotions when necessary and helping others to do the same.

Five Categories of Emotional Intelligence (EI/EQ)

- Self-regulation: the ability to manage one's negative or disruptive emotions, and to adapt to changes in circumstance. Those who are skilled in self-regulation excel in managing conflict, adapt well to change and are more likely to take responsibility.
- Motivation: the ability to self-motivate, with a focus on achieving internal or self-gratification as opposed to external praise or reward. Individuals who are able to motivate themselves in this way have a tendency to be more committed and goal focused.
- Empathy: the ability to recognize and understand how others are feeling and consider those feelings before responding in social situations. Empathy also allows an individual to understand the dynamics that influence relationships, both personal and in the workplace.
- Social skills: the ability to manage the emotions of others through emotional understanding and using this to build rapport and connect with people through skills such as active listening, verbal and nonverbal communication.
- Self-awareness: the ability to recognize and understand one's own emotions and their impact on others.

Value and Benefits of Emotional Intelligence

- **Emotional intelligence builds better teamwork**
  People with higher emotional intelligence communicate better within their team. They are also more open to the ideas of their colleagues. If you hold good emotional intelligence, it allows you to recognize the efforts of your colleagues and their hard work. It also builds a better connection between the team members, by creating shared empathy. You understand your colleagues more in the roles that they do, and the problems that they face. This will allow you to work with your team better. You will have an understanding of your teammates roles, and what is expected of them. This understanding will also help you get the most out of your role, by knowing exactly how you can help the wider team with your role. This will help you to prioritise your work to get the best results for the team.
- **Emotional intelligence creates better self awareness**
  By becoming more self aware in your role, you can understand your own strengths and your own weaknesses more. This allows you to be realistic in setting your goals for development. It also ensures that you are more open to feedback, and instead of using it negatively, you use it as an opportunity to grow and to become more effective in your job. We all require feedback, and our first reaction can be a defensive one. This is a natural reaction, as we sometimes feel we are under attack personally. However, this is not the case. The person offering the feedback is doing so to ensure you get the best out of your career, and that you improve in your role to make the most out of your opportunities. By having high emotional intelligence, your first reaction to constructive feedback will be to take it on board, and be grateful for the chance to improve.

- **Emotional intelligence builds better working relationships**
  In developing high emotional intelligence, you are able to read the atmosphere within the team better. You are able to understand the pressures that team members are under, and you will be able to assist them. It also allows you to understand what your team members need, and what sort of work and behavior they like and dislike. This insight into their preferences and their needs is invaluable to building better working relationships with them. This level of emotional intelligence develops better and more valuable relationships with clients and colleagues.
- **Emotional intelligence creates career longevity**
  Having high EQ allows you to build great working relationships, understand your role more, and understand how you can benefit your team and wider organisation the most. These 3 advantages are crucial in building a rewarding and lengthy career within an organisation. Emotional intelligence not only allows you to understand the needs of your colleagues more, but it will also help you see the needs of your organisation more.
  By bringing new ideas to the table, researching market trends and emerging practices within your sector, you can create more value in the work you do and how much you benefit the wider organisation. This will lead to improved career longevity within an organisation, and it increases your chances of raises and promotions down the line.
- **Emotional intelligence creates better social skills**
  Social skills are important in business. They help you create a good impression on your colleagues and clients. Social skills aren't being the loudest person in the room, but being the most socially aware. Emotional intelligence allows you to have awareness of other people in the room. This benefits you in the workplace as it allows you to communicate with your colleagues, and to listen to them, making them feel welcome and engaged.
  By improving your social skills through emotional intelligence, it will have a positive impact on your career. It will open more opportunities through socialising, and will also help to facilitate more networking opportunities which will help your career down the line.

Conclusion

Practice everything you learn about emotional intelligence from yourself and others every day. Identifying your weaknesses and asking for help and feedback can provide you with a list of areas to improve. Some tasks might involve just yourself, like looking in the mirror to assess your body language and facial expressions. Other tasks might include communicating with a variety of people to practice your emotional intelligence in the real world. Making an effort to improve your emotional intelligence can help you progress in your career while inspiring others to do the same.

Faculty Achievements (Awards & Recognition)

The Director-Principal, Head of departments, teaching and non-teaching faculty members of Chandigarh Engineering College-CGC Landran, Mohali were bestowed with Best Teacher Awards and Awards of Appreciation/ Recognition for their unwavering efforts on the occasion of Teachers Day, 2024.

Dr. Rajdeep Singh bestowed with Award of Excellence

Dr. Rajdeep Singh bestowed with Award of Special Recognition

Faculty Achievements (Awards & Recognition)

Dr. Harpal Singh bestowed with Award of Special Recognition

Dr. Amanpreet Kaur received Achievers award

Faculty Achievements (Awards & Recognition)

Dr. Amanpreet Kaur received Award of Special Recognition

Mr. Amitabh Sharma received Achievers award

Faculty Achievements (Awards & Recognition)

Dr Meena Devi—Best Teacher Award

Dr Satish—Best Teacher Award

Mr. Gurkirat Singh—Best Teacher Award

Dr.Saurabh Chaitanya—Special Achievement Award

Dr. Sachin Mohal—Special Achievement Award

Dr. Narinder Kumar—Achievers Award

Faculty Achievements (Awards & Recognition)

Dr Inderjot Kaur—Achievers Award

Dr Inderjot Kaur—Best Website Coordinator Award

Mr Satish Kumar—Award of Appreciation

Dr Shashi Bala—Achievers Award

Ms Namita—Achievers Award

Dr Shalini Verma—Achievers Award

Faculty Achievements (Awards & Recognition)

Dr. Rahul Mehra—Best Mentor Award

Ms Namrata Chopra—Best DSW Coordinator Award

Ms Manmeet—Achievers Award

Ms Gurmeet Kaur—Award for 10 Years Completion at CGC

Ms. Parneet Kaur—Best Teacher Award

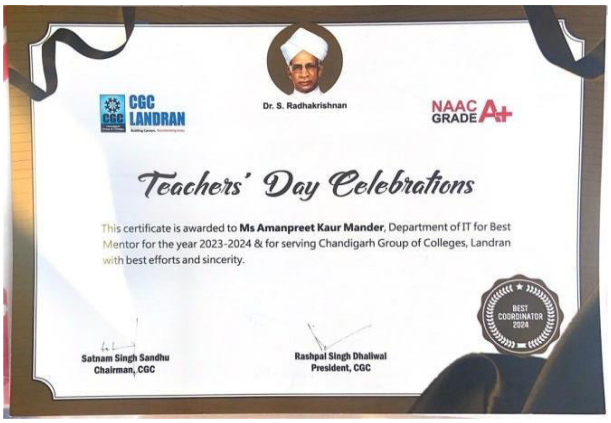
Mr Gaurav Goyal—Best Teacher Award

Faculty Achievements (Awards & Recognition)

Ms. Rachna Manchanda—Best Teacher Award

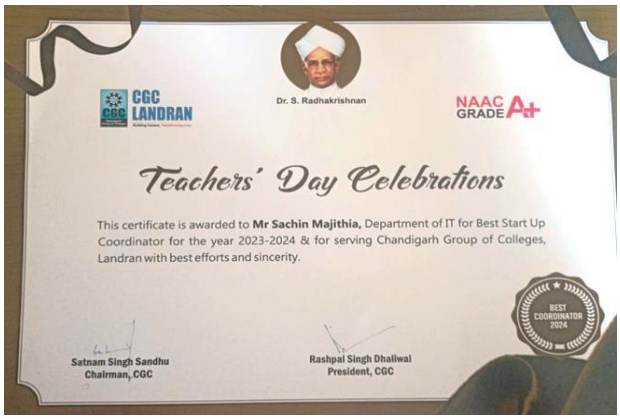
Ms. Aishna Mahajan—Best Mentor Award

Mr. Ravinder Singh—Best Sports Coordinator Award



Ms. Amanpreet Kaur—Best Mentor Award

Mr. Sachin Majithia— Award of Special Recognition



Mr. Sachin Majithia—Best Start-up Coordinator Award

Faculty Achievements (Awards & Recognition)

Dr. Vinay Bhatia	Achievers Award, Award of Special Recognition
Dr. Mohit Srivastava	Award for Special Achievement
Dr. Rinkesh Mittal	Achievers Award
Dr. Sukhdeep Kaur	Achievers Award,Award of Special Recognition
Dr. Pooja Sahni	Achievers Award,Award of Special Recognition
Dr. Ankur Singhal	Award for Special Achievement
Dr. Bhawna Tandon	Award of Special Recognition
Dr. Deepak Dadwal	Achievers Award
Dr. Pradeep Kumar Gaur	Achievers Award
Dr. Tarun Singhal	Achievers Award
Dr. Ashima Kalra	Award for Special Achievement
Dr. Komal	Achievers Award
Dr. Simarpreet Kaur	Best Coordinator-International Affairs and Admissions
Rachna Manchanda	Best Teacher Award
Preeti Bansal	Achievers Award, Best Mentor
Nidhi Chahal	Achievers Award, Best Coordinator-UBA

Non-Teaching Faculty/ Employees Achievements (Awards & Recognition)

Mr Gurpreet Singh—Best Lab Technician Award

Mr Sanjiv Kumar—Award of Appreciation

Ms Parvinder—Best Employee Award

Ms Parvinder—Award of Special Recognition

Mr Naveen Kumar—Best Employee Award

Ms Ritu Sharma—Best Lab Technician Award

Non-Teaching Faculty/ Employees Achievements (Awards & Recognition)

Ms. Rupinder Kaur—Best Lab Technician Award

Faculty Achievements (Patents)

- **Dr Amit Verma, Iqbaldeep Kaur, Rajeev Sharma, Dr.Gagandeep, Sumit Kaur, Bikram Pal Kaur, Ranjeeta** got their patent granted on 2nd September, 2024. The title of the patent is "System and Method for Image Processing."

पेटेंट कार्यालय,भारत सरकार
पेटेंट प्रमाण पत्र |
The Patent Office, Government Of India
Patent Certificate

पेटेंट सं. / Patent No. : 549481
आवेदन सं. / Application No. : 201911004146
फाइल करने की तारीख / Date of Filing : 01/02/2019
पेटेंटी / Patentee : Chandigarh Group of Colleges
आविष्कारकों का नाम /Name of Inventor(s) : 1.Dr Amit Verma 2.Iqbaldeep Kaur 3.Rajeev Sharma 4.Dr.Gagandeep 5.Sumit Kaur 6.Bikram Pal Kaur 7.Ranjeeta

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित *SYSTEM AND METHOD FOR IMAGE PROCESSING* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख फरवरी 2019 के पहले दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *SYSTEM AND METHOD FOR IMAGE PROCESSING* as disclosed in the above mentioned application for the term of 20 years from the 1st day of February 2019 in accordance with the provisions of the Patents Act,1970.

Date of Grant : 02/09/2024
Controller of Patents

Note. - The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 1st day of February 2021 and on the same day in every year thereafter.

- **Dr. Gagandeep and Dr. Amit Verma** got their patent granted on 9th September, 2024. The title of the patent is "Surveillance System and Method."

पेटेंट कार्यालय,भारत सरकार
पेटेंट प्रमाण पत्र |
The Patent Office, Government Of India
Patent Certificate

पेटेंट सं. / Patent No. : 549800
आवेदन सं. / Application No. : 201911012808
फाइल करने की तारीख / Date of Filing : 30/03/2019
पेटेंटी / Patentee : Chandigarh Group of Colleges

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित *SURVEILLANCE SYSTEM AND METHOD* नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख मार्च 2019 के तीसवे दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled *SURVEILLANCE SYSTEM AND METHOD* as disclosed in the above mentioned application for the term of 20 years from the 30th day of March 2019 in accordance with the provisions of the Patents Act,1970.

Date of Grant : 09/09/2024
Controller of Patents

Note. - The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 30th day of March 2021 and on the same day in every year thereafter.

- **Dr. Pradeep Kumar Gaur, Saloni Kashyap, Suryavanshi Katoch and Dr. Rajdeep Singh** filed a patent on "Portable Automatic Tapping Machine."
- **Ms. Preeti Bansal** filed a patent on "Biocompatabile ink formulation with dynamic color change properties and method of preparation".

Faculty Achievements (Certifications)

➢ **Dr. Bhawna Tandon** got certification of achievement for the course "Fundamentals of AI" from SAWIT.AI Learnathon in September 2024.


GUVI
An HCL Group Company
SOUTH ASIAN WOMEN IN TECH
Powered By KALIDO
nasscom
futureskills prime

Bhawna Tandon

is hereby awarded the certificate of achievement for the successful completion of **SAWIT.AI Learnathon** Program held on 21st September, where they completed the fundamentals of Generative AI

Supported by

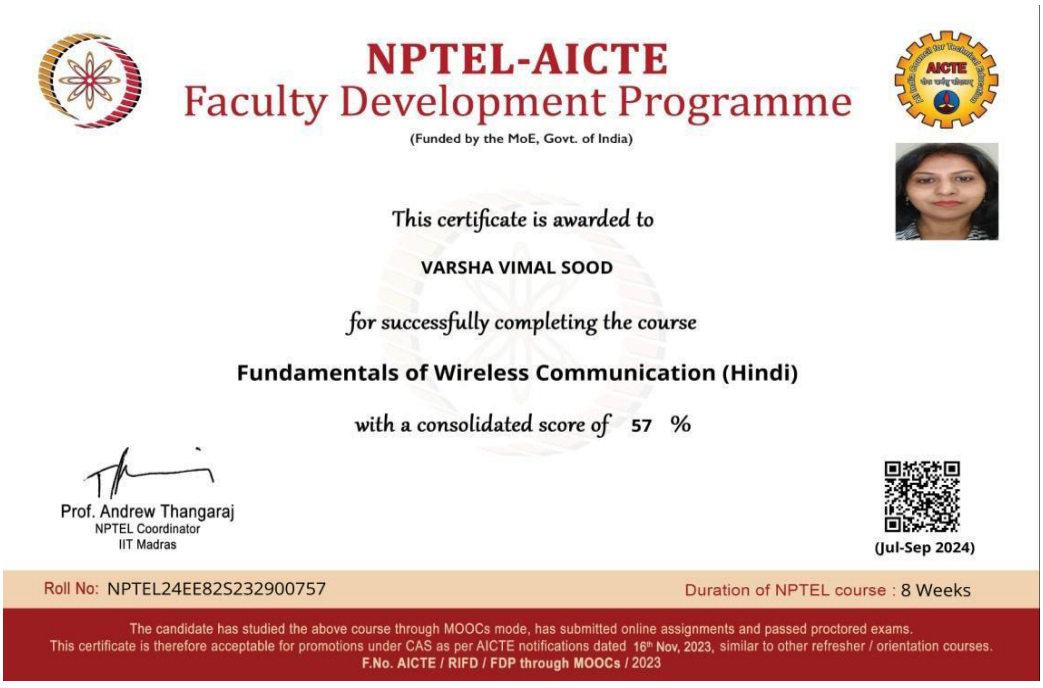
Women Techmakers
Google for Developers
HCLTech

M. Arunprakash
Founder and CEO,
GUVI Geek Networks.

Dr. Dinesh Singh
Director, Policy & Academic
Planning Bureau, AICTE

Certificate issued on : 01/10/2024
Verified certificate Id : Z8A1698q7827xDzrF0

➢ **Dr.Varsha Sood** completed SWAYAM certification in the Course Wireless Communication in September 2024.


NPTEL-AICTE
Faculty Development Programme
(Funded by the MoE, Govt. of India)

This certificate is awarded to

VARSHA VIMAL SOOD

for successfully completing the course

Fundamentals of Wireless Communication (Hindi)

with a consolidated score of **57** %

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

(Jul-Sep 2024)

Roll No: NPTEL24EE82S232900757

Duration of NPTEL course : 8 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 16th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023

Faculty Achievements (Certifications)

- Dr. Ashima Kalra achieved Google Cybersecurity Professional Coursera certification, consisting of 8 courses from COURSERA in July 2024.

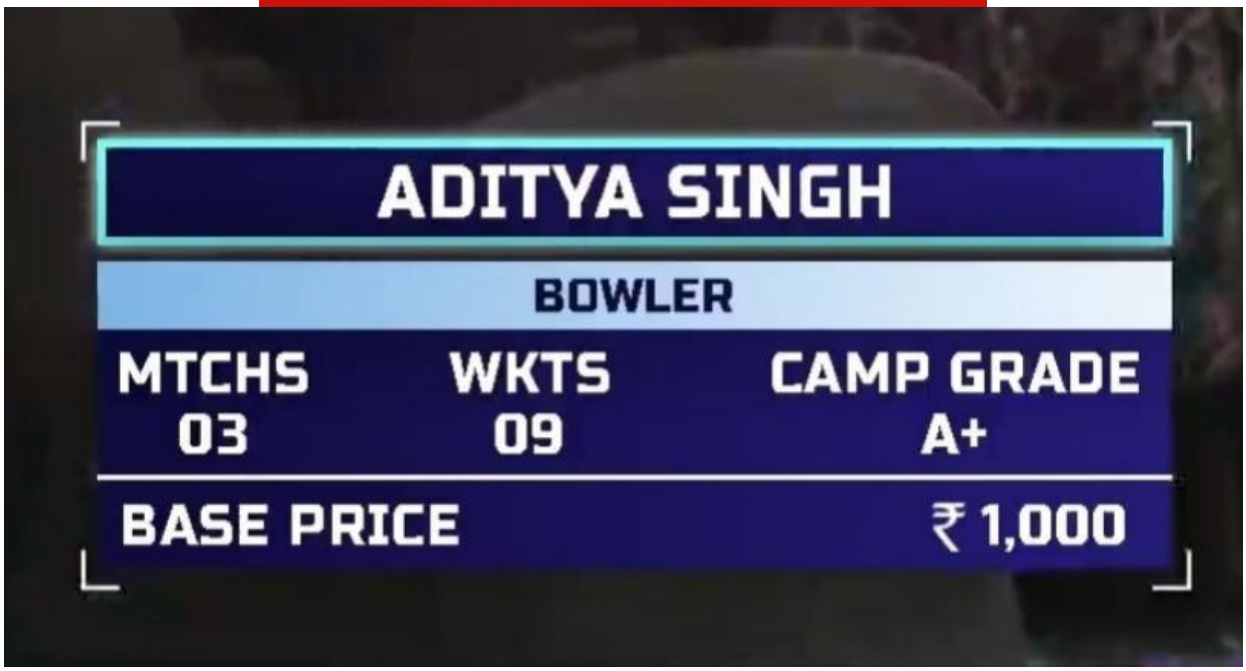
Faculty Achievements (Publications)

- **Dr. Ashima Kalra** published a Springer book chapter on "Statistical Distribution of Blood Glucose Levels in Diabetic Patients Diagnosis Using ML-Based PCA Methods" in the book titled Revolutionizing Healthcare: AI Integration with IoT for Enhanced Patient Outcomes in Vol 7. Springer, Cham during September 2024.

- **Preeti Bansal, Dr. Simarpreet Kaur, Nidhi Chahal, Dr.Tarun Singhal, Vivek Manola**, got acceptance for their research paper, "Eco-Friendly Innovations: A Review of 3D Printing with Biodegradable Filaments" in July 2024 which will be published in Journal of Polymer and Composites-ESCI indexed.

Students Achievements

- **Adtiya Maha Singh** B.Tech ECE 1st Year Student from CGC Landran makes a place in National Young Star Cricket League. Aditya Maha Singh, the young talent has not only qualified for the prestigious National Young Star Cricket League (YSCL) with an outstanding A+ grade but has also made a significant mark during the bidding process. Initially placing a modest bid of Rs 1,000 as a bowler, the student's potential was quickly recognized, leading to a dramatic increase in his bid to an impressive Rs 360,000. This remarkable journey from a hopeful participant to a highly valued player in the YSCL is a testament to his dedication and skill in the sport.



Students Achievements

- The Mechanical Engineering students of Chandigarh Engineering College - CGC, Landran, Mohali, have once again showcased their exceptional talent. Team Rudraksh has secured the First Prize at Hackwars, organized by Chandigarh University, along with a cash prize of ₹40,000. This outstanding achievement is a true testament to their dedication, innovation, and hard work.

- **Ms. Mansi**, a student of CSE department won gold medal in powerlifting championship at Chandigarh State Powerlifting Championship held on July 20, 2024.

Students Achievements

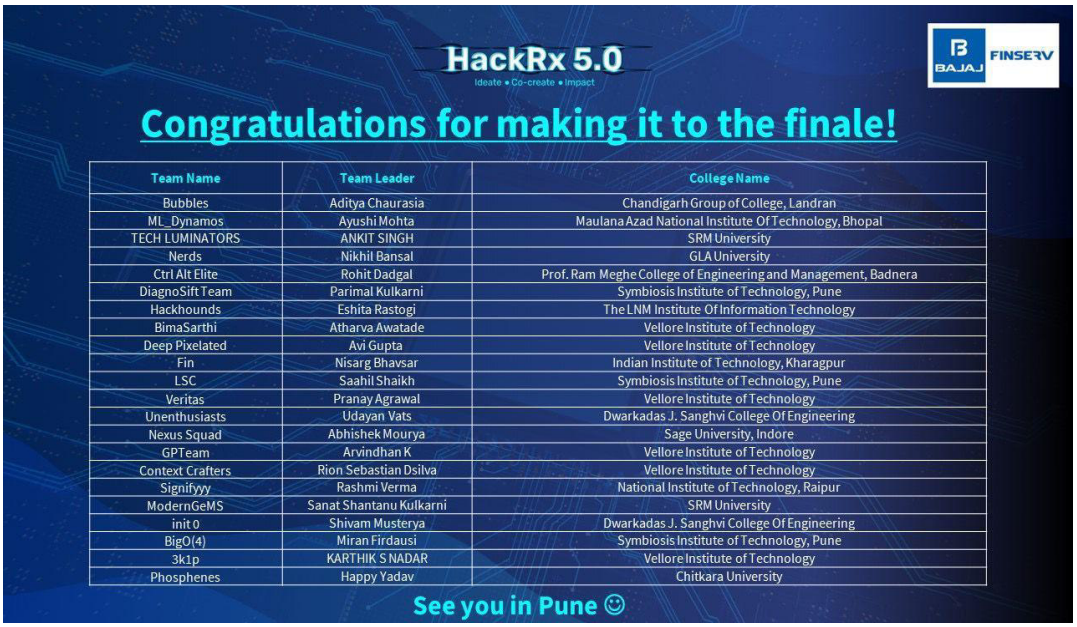
- **Ms. Ekanki Shukla**, a student of CSE department got 1st position in Inter-college badminton tournament organised by Sports department on 8th August 2024.

- **Mr. Danish Dhyani**, a student of CSE department got 2nd position in IKGPTU Swimming Tournament organized by IKGPTU at Guru Nanak Dev Engineering College, Ludhiana on 9th Sept 2024.

Students Achievements

- **Mr. Kaushal** a student of CSE deaprtment got 1st position in Inter college Chess tournament organized by IKGPTU at CGC Landran on 20th Sept 2024.

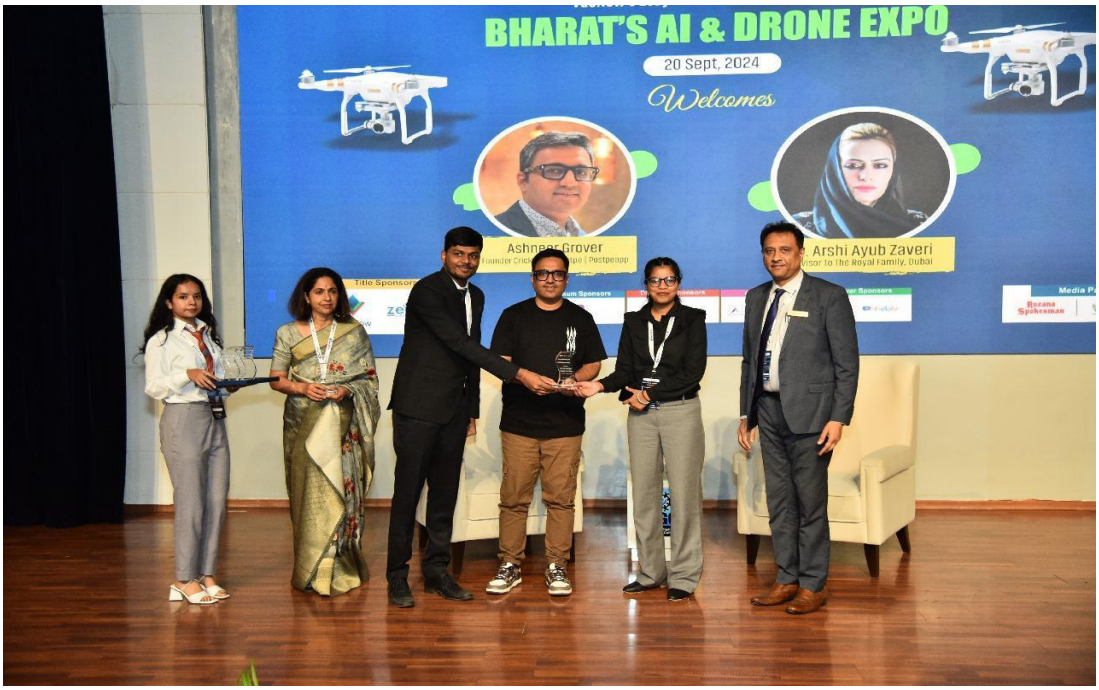
- One Team from ECE department with **Aditya Chaurasia** as Team Leader qualified for Grand Finale in Pune for Bajaj Hackathon.



Team Name	Team Leader	College Name
Bubbles	Aditya Chaurasia	Chandigarh Group of College, Landran
ML_Dynamos	Ayushi Mohta	Maulana Azad National Institute Of Technology, Bhopal
TECH LUMINATORS	ANKIT SINGH	SRM University
Nerds	Nikhil Bansal	GLA University
Ctrl Alt Elite	Rohit Dadgal	Prof. Ram Meghe College of Engineering and Management, Badnera
DiagnoSift Team	Parimal Kulkarni	Symbiosis Institute of Technology, Pune
Hackhounds	Eshita Rastogi	The LNM Institute Of Information Technology
BimaSarthi	Atharva Awatade	Vellore Institute of Technology
Deep Pixelated	Avi Gupta	Vellore Institute of Technology
Fin	Nisarg Bhavsar	Indian Institute of Technology, Kharagpur
LSC	Saahil Shaikh	Symbiosis Institute of Technology, Pune
Veritas	Pranay Agrawal	Vellore Institute of Technology
Unenthusiasts	Udayan Vats	Dwarkadas J. Sanghvi College Of Engineering
Nexus Squad	Abhishek Mourya	Sage University, Indore
GPTeam	Arvindhan K	Vellore Institute of Technology
Context Crafters	Rion Sebastian Dsilva	Vellore Institute of Technology
Signifyyy	Rashmi Verma	National Institute of Technology, Raipur
ModernGeMS	Sanat Shantanu Kulkarni	SRM University
init 0	Shivam Musterya	Dwarkadas J. Sanghvi College Of Engineering
BigO(4)	Miran Firdausi	Symbiosis Institute of Technology, Pune
3k1p	KARTHIK S NADAR	Vellore Institute of Technology
Phosphenes	Happy Yadav	Chitkara University

Students Achievements

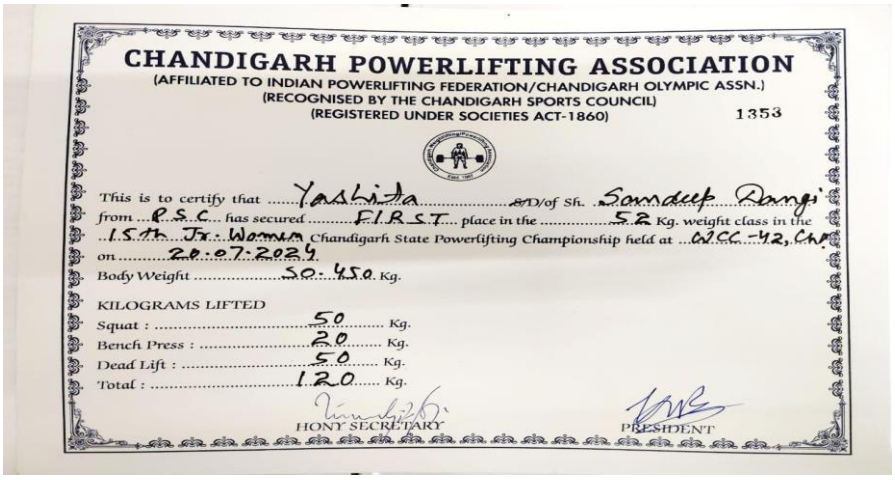
- **Nicky Kumari** of ECE department got Best Entrepreneurship Award for Startup WEBTECHFLY and she also received Award for Female Entrepreneur in AI & Drone Expo held on 20.9.24 at CGC Landran. Besides that Nicky Kumari also received 1st Prize in Eureka Idea Pitching Competition - by E-Cell of CGC- COE.



Students Achievements

- **Deepanshu Thakur** from ECE department won 3rd prize in basketball competition during Khedan Vatan Punjab Diyan held at Sohana.

- **Yashita** from ECE department bagged First position in Chandigarh state power championship held on 25.8.24 and got second position in Chandigarh state weightlifting championship held at hockey stadium, sector 42, Chandigarh on 20.7.24.

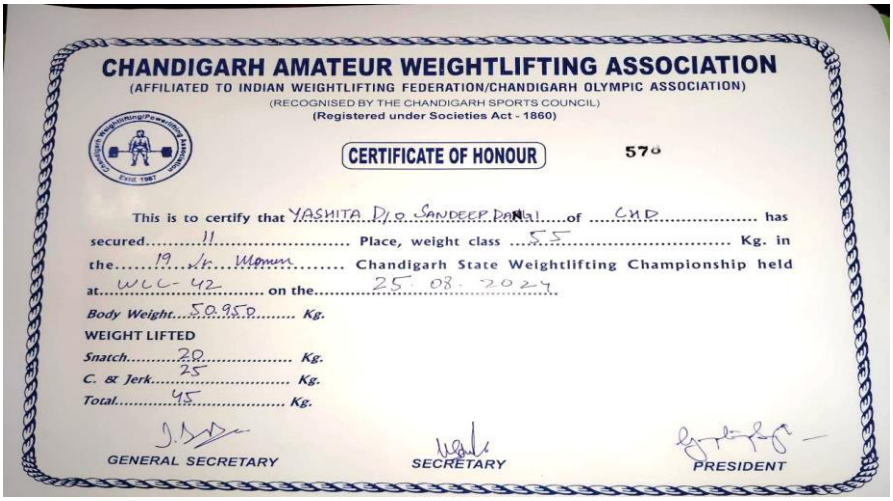


CHANDIGARH POWERLIFTING ASSOCIATION
(AFFILIATED TO INDIAN POWERLIFTING FEDERATION/CHANDIGARH OLYMPIC ASSN.)
(RECOGNISED BY THE CHANDIGARH SPORTS COUNCIL)
(REGISTERED UNDER SOCIETIES ACT-1860) 1353

This is to certify that Yashita D/o of Sh. Sandeep Rangi from P.S.C. has secured FIRST place in the 52 Kg. weight class in the I.S.M. Jr. Womens Chandigarh State Powerlifting Championship held at WCC-42, Chd. on 20:07:2024
Body Weight 50.450 Kg.

KILOGRAMS LIFTED
Squat : 50 Kg.
Bench Press : 20 Kg.
Dead Lift : 50 Kg.
Total : 120 Kg.

HONY SECRETARY PRESIDENT



CHANDIGARH AMATEUR WEIGHTLIFTING ASSOCIATION
(AFFILIATED TO INDIAN WEIGHTLIFTING FEDERATION/CHANDIGARH OLYMPIC ASSOCIATION)
(RECOGNISED BY THE CHANDIGARH SPORTS COUNCIL)
(Registered under Societies Act - 1860)

CERTIFICATE OF HONOUR 576

This is to certify that YASHITA D/o SANDEEP Rangi of CHD has secured 11 Place, weight class 55 Kg. in the 19 Jr. Women Chandigarh State Weightlifting Championship held at WCC-42 on the 25.08.2024
Body Weight 50.950 Kg.
WEIGHT LIFTED
Snatch 20 Kg.
C. & Jerk 25 Kg.
Total 45 Kg.

GENERAL SECRETARY SECRETARY PRESIDENT

Students Achievements

- 120 students of ECE got MOOC certifications from different online certification platforms like Coursera, Udemy, Swayam, AWS, future learn ,skill up, AWS Educate, Great Learning, GUVI etc. in June2024.

- **Khushi Jagga** of ECE department did online Coursera certification in Project Planning: Putting it all together.

- ECE department students got 17 job offers out of which 14 students got placed in reputed companies like Capgemini, Cognizant etc with highest package of 11.5 LPA.

Sr No	Name	Company	Package (LPA)	Profile
1	Priya Ranjan	GreyB Research Pvt Ltd	7	Trainee - Research Analyst
2	Priya Ranjan	Mu Sigma Business Solution Pvt. Ltd.	10.5	Trainee Decision Scientist
3	Suhel Sharma	Mu Sigma Business Solution Pvt. Ltd.	10.5	Trainee Decision Scientist
4	Sonali Kumari	Artech Infosystems Pvt. Ltd.	4.68	Associate Recruiter
5	Shalini Kumari	Artech Infosystems Pvt. Ltd.	4.68	Associate Recruiter
6	Sonali Kumari	Varroc Engineering Pvt. Ltd.	11.5	Graduate Engineering Trainees
7	Bhumika	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
8	Bhupinder Kaur	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
9	Mani Ratan	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
10	Nicky Kumari	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
11	Piyush Kumar	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
12	Ritesh Singh	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
13	Ritika Bhatia	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
14	Saloni Kashyap	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
15	Sami Akhtar	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
16	Shalini Kumari	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)
17	Suryavanshi Katoch	Renault Nissan Technology and Business Center India Pvt. Ltd.	4.25	Graduate Engineering Trainee (GET)

Students Achievements

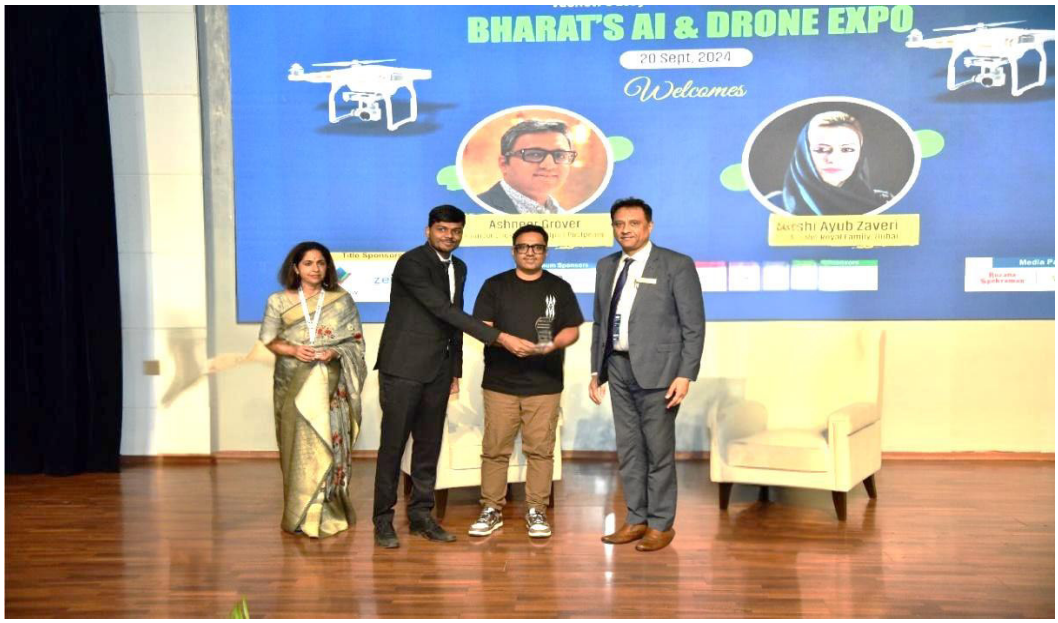
- **Klsh** from the Department of Information Technology won 2nd Prize in Chandigarh State Power Lifting Championship 2024 held on 20th July, 2024 at Chandigarh.

- **Sarthak and Aryan Chaudhary** from the Department of Information Technology won Bronze medal in IKGPTU Inter College Badminton Tournament 2024 held on 29th September 2024 at DAVIET, Jalandhar.

Students Achievements

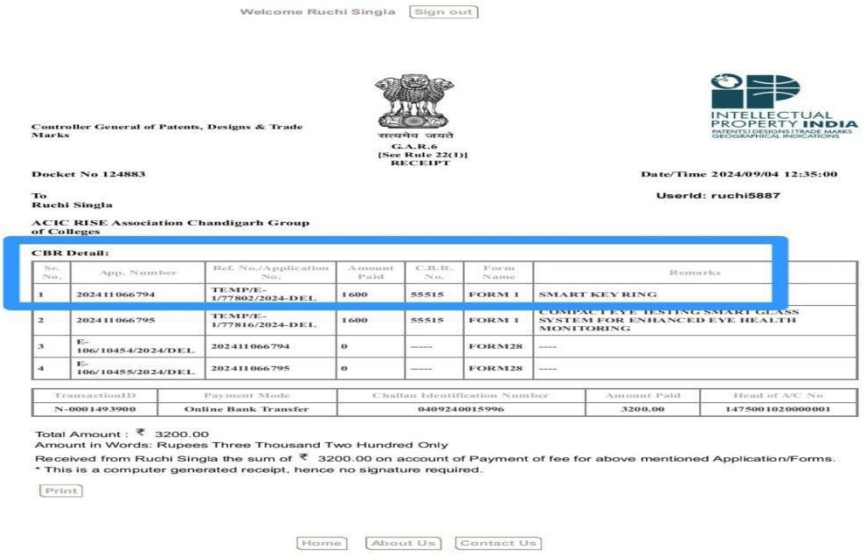
- **Nishant Choudhary** from the Department of Information Technology won Bronze medal in IKGPTU Inter College Kabaddi Tournament 2024 held on 25th September 2024 at Mastuana Sahib, Sangrur.

- **Avinash** from the Department of Information Technology received Best Entrepreneur Award from Mr. Ashneer Grover on 20th September, 2024 at Chandigarh Engineering College-CGC, Landran, Mohali.
-



Students Achievements

- **Avinash** from the Department of Information Technology filed a patent "Smart Keying" with Application No. 202411066794 on 4th September, 2024.



Welcome Ruchi Singla Sign out

Controller General of Patents, Designs & Trade Marks

सत्यमेव जयते

G.A.R.6
[See Rule 22(1)]
RECEIPT

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS | GEOGRAPHICAL INDICATIONS

Docket No 124883

Date/Time 2024/09/04 12:35:00

To
Ruchi Singla

UserId: ruchi5887

ACIC RISE Association Chandigarh Group of Colleges

CBR Detail:

Sr. No.	App. Number	Ref. No./Application No.	Amount Paid	C.B.R. No.	Form Name	Remarks
1	202411066794	TEMP/E-1/77802/2024-DEL	1600	55515	FORM 1	SMART KEY RING
2	202411066795	TEMP/E-1/77816/2024-DEL	1600	55515	FORM 1	COMPACT EYE-TESTING SMART GLASS SYSTEM FOR ENHANCED EYE HEALTH MONITORING
3	E-106/10454/2024/DEL	202411066794	0	-----	FORM28	----
4	E-106/10455/2024/DEL	202411066795	0	-----	FORM28	----

TransactionID	Payment Mode	Challan Identification Number	Amount Paid	Head of A/C No
N-000149390O	Online Bank Transfer	0409240015996	3200.00	1475001020000001

Total Amount : ₹ 3200.00
Amount in Words: Rupees Three Thousand Two Hundred Only
Received from Ruchi Singla the sum of ₹ 3200.00 on account of Payment of fee for above mentioned Application/Forms.
* This is a computer generated receipt, hence no signature required.

Print

Home About Us Contact Us

- **Avinash** from the Department of Information Technology bagged 1st Prize in "Eureka Idea Pitching Competition" held on 30th September, 2024 at COE-CGC, Landran, Mohali.

Students Achievements

- **Ishita and Prerna** from MBA 1st semester won silver medal and **Himanshu** won bronze medal in IKGPTU Inter College Badminton competition on 27th-28th September 2024.

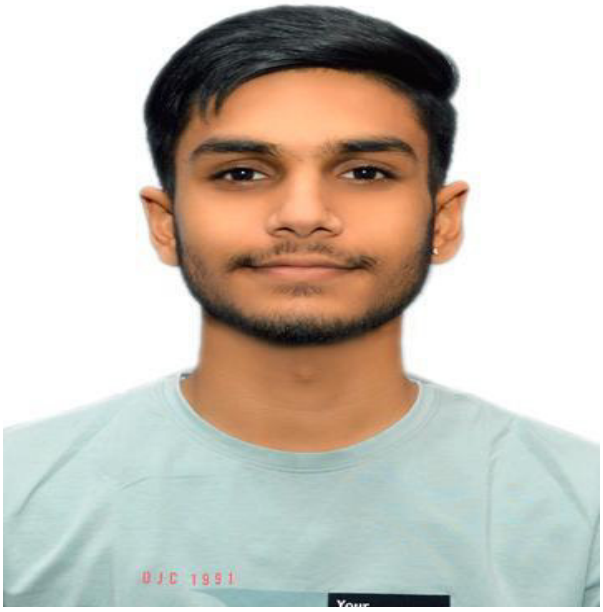
- **Shiv Pratap** from MBA 3rd semester won Bronze medal in IKGPTU Inter College Badminton competition on 27th-28th September 2024.

- **Jyoti Rawat** from MBA 1st semester won silver medal in IKGPTU Inter College Table Tenis competition on 16th-17th September2024.

- **Kapil Rana** from MBA 3rd semester won silver medal in 100 metre breastroke and bronze medal in 200 metre breastroke in IKGPTU Inter College swimming competition held on 9th September 2024 .

Students Section

STUDENT EDITORS



Arpan Sood

B.Tech AI&DS –A1

Darshpreet Kaur

B.Tech CSE-B2

Mohammad Sahil

B.Tech AI&DS –A2

Charu

B.Tech CSE-B2

Optical Fiber Communications: The Future of Data Transmission

Optical fiber communications have revolutionized the way we transmit data, enabling faster, reliable, and secure connections. This technology uses light to transmit data through thin glass or plastic fibers, offering unparalleled bandwidth and speed. Optical communication technologies offer numerous advantages, revolutionizing data transmission. These benefits include exceptionally high-speed data transmission rates of up to 100 Gbps, enabling rapid information exchange. Signal integrity is preserved over long distances without degradation, ensuring reliable connectivity. Additionally, optical communications are immune to electromagnetic interference, minimizing disruptions. Furthermore, the technology provides enhanced security features, such as intrusion detection and encryption, safeguarding sensitive data from unauthorized access. These benefits collectively make optical communications an indispensable solution for high-performance, secure, and reliable data transmission applications.

The optical communications landscape is rapidly evolving, driven by six key trends. The integration of 5G networks relies heavily on optical fibers for seamless connectivity, while Quantum Key Distribution (QKD) ensures secure encryption key exchange over these fibers. Li-Fi technology emerges as a contender to replace Wi-Fi in high-density areas, utilizing light to transmit data. Space-Division Multiplexing (SDM) revolutionizes fiber capacity by transmitting multiple signals simultaneously. Flexible Optical Networks enable dynamic reconfiguration for efficient resource allocation. Lastly, Optical Wireless Communications (OWC) converges optical fibers with wireless technology, promising uninterrupted connectivity. These advancements promise to transform the future of communications, delivering faster, more secure, and reliable data transmission.

Emerging Applications:

1. Data centers and cloud computing
2. Internet of Things (IoT)
3. Smart cities and homes
4. Telemedicine and healthcare
5. Autonomous vehicles

As demand for high-speed data transmission continues to grow, optical fiber communications will play a vital role in shaping the future of connectivity. Advancements in materials science and technology will further increase fiber capacity, enabling widespread adoption of emerging applications.The future of optical fiber communications holds immense promise, transforming industries and revolutionizing the way we interact, work, and live.

Mamta Bhardwaj
7thsem-ECE

Medical ATM: Revolutionizing Healthcare with Automated Technology

A Medical ATM, also known as an Automated Healthcare Kiosk or Telemedicine Kiosk, is an innovative self-service platform that integrates medical diagnostic tools, telehealth capabilities, and artificial intelligence. This cutting-edge technology is transforming the healthcare landscape by providing accessible, efficient, and cost-effective medical services.

Key Features: Biometric analysis (blood pressure, temperature, etc.)**,** Medical imaging (ultrasound, ECG, etc.)**,** Teleconsultation with healthcare professionals**,** Prescription dispensing and medication management **and** Health data tracking and analytics

Current Research: Researchers are focusing on enhancing Medical ATM capabilities, including:

1. AI-powered diagnostic algorithms for accurate disease detection
2. Integration with wearable devices for continuous health monitoring
3. Advanced imaging technologies (e.g., portable MRI)
4. Personalized medicine through genetic analysis
5. Secure data storage and blockchain-based health records

Benefits: It includes Increased accessibility for rural or underserved populations**,** Reduced healthcare costs through preventive care**,** Enhanced patient engagement and empowerment**,** Improved diagnostic accuracy and timely interventions and Streamlined healthcare delivery and reduced wait times

Real-World Implementations:

1. Singapore's Health ATM initiative
2. India's Telemedicine Kiosk project
3. US-based HealthSpot stations

Future scope:

As Medical ATM technology advances, we can expect:

1. Widespread adoption in hospitals, clinics, and pharmacies
2. Integration with national health records systems
3. Expansion into specialized areas (e.g., mental health, pediatrics)
4. Enhanced collaboration between healthcare professionals and AI systems

By harnessing the potential of Medical ATMs, we can create a more efficient, patient-centric, and accessible healthcare ecosystem.

Mayank
5th Sem-ECE

High-Performance Computing: Unlocking Breakthroughs in Science and Technology

High-Performance Computing (HPC) is a powerful technology that enables faster processing, simulation, and analysis of complex data. By harnessing the power of supercomputers, researchers and scientists can tackle pressing challenges in various fields.

Benefits: The adoption of advanced computing technologies yields numerous benefits, driving significant advancements across various industries. These benefits include accelerated discovery and innovation, enabling researchers to explore new frontiers. Enhanced simulation and modeling accuracy allows for better forecasting and decision-making. Improved data analysis and visualization uncover hidden insights, informing strategic choices. Increased scalability and flexibility enable organizations to adapt quickly to changing demands. Ultimately, these advantages culminate in a faster time-to-market for products and services, empowering businesses to stay competitive, respond swiftly to emerging opportunities, and transform the landscape of their respective fields.

Current Trends: The high-performance computing (HPC) landscape is evolving rapidly, driven by five key trends. At the forefront is Exascale Computing, next-generation supercomputers capable of performing an unprecedented 1 exaflop, or 1 billion billion calculations per second. Complementing this is GPU-Accelerated Computing, which leverages graphics processing units to significantly boost performance. Cloud HPC is also gaining traction, offering on-demand access to high-performance infrastructure, while Quantum Computing is poised to revolutionize simulations by harnessing the power of quantum mechanics. Lastly, Artificial Intelligence (AI) Integration is enhancing HPC by infusing AI-driven insights, enabling more efficient, intelligent, and automated processing. Together, these trends promise to transform the field of HPC, driving breakthroughs in fields such as scientific research, data analytics, and machine learning.

High-performance computing (HPC) and advanced technologies are driving innovation in critical fields, enabling breakthroughs in five key areas. Scientists are leveraging HPC to predict severe weather events with greater accuracy, while also developing personalized cancer treatments tailored to individual genetic profiles. Additionally, researchers are designing more efficient renewable energy systems to combat climate change. HPC is also improving autonomous vehicle safety by simulating complex scenarios and optimizing decision-making algorithms. Furthermore, advanced computing is enhancing cybersecurity threat detection, enabling rapid identification and response to emerging threats. These applications harness the power of HPC, AI, and data analytics to transform lives, communities, and industries, driving a safer, healthier, and more sustainable future.

As High-Performance Computing continues to evolve, its impact will broaden and deepen across industries. Expect increased adoption in finance and healthcare, harnessing HPC's power for risk analysis, medical imaging, and personalized medicine. Integration with Artificial Intelligence and Machine Learning will intensify, driving insights and automation. Specialized HPC architectures will emerge, optimized for specific tasks. Cloud and edge computing will democratize access to HPC resources, enabling wider adoption. These advancements will propel breakthroughs in materials science, genomics, and other fields, unlocking discoveries such as novel materials, disease prevention strategies, and climate modeling innovations, transforming the trajectory of human progress and scientific exploration. By pushing the boundaries of computational power, High-Performance Computing is transforming the world.

Harmanjot
7thsem -ECE

The Interplay of Leadership and Management

Keys to Organizational Success In today's rapidly changing business, the distinction between leadership and management is often blurred. However, understanding the difference of both roles is essential for organizational success. This article explores the core elements of leadership and management, their interrelationship, and the skills necessary for effective practice in each domain. "*Understanding Leadership and Management*"

Leadership: Leadership is primarily about vision, inspiration, and influence. It involves setting a direction for the organization and motivating employees to achieve common goals. A leader cultivates a shared vision, an environment of trust and collaboration .Effective leaders are often characterized by their ability to Inspire and Motivate, Foster Innovation and Build Relationship. Strong interpersonal skills allow leaders to connect with team members on a personal level, enhancing engagement and loyalty.

Management: Management, on the other hand, focuses on the organization and coordination of resources to achieve specific objectives. It involves planning, organizing, leading, and controlling organizational processes. Key functions of management include:

- **Planning:** Setting clear goals and determining the best course of action to achieve them.
- **Organizing:** Allocating resources and assigning tasks to ensure efficiency and effectiveness.
- **Controlling:** Monitoring progress and making adjustments as needed to stay on track.

While leadership and management may differ in focus, they are complementary and both are crucial for an organization's success.

The Interrelationship between Leadership and Management In practice, effective leaders often possess strong management skills, and management is responsible for implementing and organising the actions.

This synergy can significantly enhance an organization's performance. Here's how they interact:

- **Vision vs. Execution:** While leaders define the vision, managers are responsible for executing it. A successful organization requires both a clear vision and the operational framework to realize it.
- **Change Management:** Leaders drive change by inspiring and motivating teams, while managers facilitate that change by managing the logistics and resources required for implementation.
- **Empowerment:** Leaders empower employees by forming a culture of trust and collaboration, while managers empower teams by providing the necessary tools, training, and support to succeed. *"Skills for Effective Leadership and Management"* To excel in both leadership and management roles, individuals must develop a diverse skill set.

Here are some essential skills for each:

- **Emotional Intelligence:** Understanding and managing one's emotions and those of others build better relationships and communication.
- **Visionary Thinking:** The ability to see the big picture and articulate a clear direction for the future is vital.
- **Adaptability:** Leaders must be flexible and open to change, adjusting their strategies as the environment evolves.
- Essential Skills For Management Are:
- **Analytical Thinking:** Managers need to analyze data and make informed decisions based on quantitative and qualitative insights. -
- **Organizational Skills:** Effective management requires the ability to prioritize tasks, manage time, and coordinate resources efficiently.
- **Problem-Solving:** Managers must address challenges proactively, using critical thinking to devise effective solutions.

Conclusion: In the organizational dynamics, the roles of leadership and management are closely related to other and each playing a pivotal role in driving success. Effective leaders inspire and innovate, while proficient managers ensure that vision is translated into reality through structured processes. By cultivating skills in both areas, individuals can position themselves and their organizations for sustainable growth.

Ultimately, the most successful organizations are those that recognize and manage or control the strengths of both leadership and management, creating a harmonious environment where vision and execution go hand in hand.

Lakshita Rana
MBA 1st Semester

Trade Dynamics Between India, China, and the U.S.: A Complex Triad

Introduction

Trade among India, China, and the United States plays a crucial role in the global economy, shaped by historical ties, geopolitical tensions, and changing market trends. Each of these countries significantly influences international trade, and their interactions have important implications for economic policies and global relations. This article looks at the trade relationships between these three nations, examining the current situation, key sectors and challenges.

India and China

Current Trade Status

China is one of India's largest trading partners. In 2021, bilateral trade between the two countries surpassed $100 billion, making it an important economic relationship. However, India has been facing a consistent trade deficit with China, importing much more than it exports.

Key Imports and Exports

Imports: India primarily imports machinery, electronics, chemicals, and pharmaceuticals from China. Electronics, especially mobile phones and their components, lead the import list.
Export: India's exports to China mainly consist of raw materials, textiles, and agricultural products, with notable exports of iron ore and cotton.

Geopolitical Tensions

Despite their economic ties, the relationship is strained by geopolitical issues, particularly border disputes. The clashes in 2020 along the Line of Actual Control (LAC) heightened scrutiny of trade ties and raised concerns about dependence on Chinese goods.

India and the U.S.

Growing Economic Partnership

The trade relationship between India and the U.S. has been steadily increasing, with bilateral trade reaching around $100 billion in 2021. This partnership is marked by strong economic connections and shared strategic interests.

Key Sectors

Exports: India exports textiles, pharmaceuticals, IT services, and agricultural products to the U.S. The U.S. is a major destination for Indian IT services, which are crucial to India's economy.
Imports: India imports machinery, aircraft, and chemicals from the U.S. The rising demand for advanced technology and defense equipment has also driven U.S. exports to India.

Strategic Cooperation

The U.S. considers India a vital partner in the Indo-Pacific region, focusing on defense, security, and trade cooperation to counterbalance China's growing influence and maintain regional stability.

U.S. and China

Major Trade Relationship

The U.S. and China are two of the largest economies in the world, with trade reaching approximately $700 billion in recent years. Their relationship is marked by deep interdependence, but also significant tension.

Trade Imbalances and Tariffs

The U.S. has raised concerns about trade imbalances, with imports from China greatly exceeding exports. This led to tariffs during the U.S.-China trade war, causing friction in their economic relationship.

Key Industries

Exports: The U.S. primarily exports aircraft, machinery, and agricultural products to China.
Imports: The U.S. imports a large volume of electronics, machinery, and textiles from China, making it a crucial player in American consumer markets.

Challenges in the Trade Landscape

Trade Barriers

Each country faces trade barriers that complicate relationships. Tariffs, import restrictions, and regulatory hurdles can hinder the flow of goods. India's regulatory framework, including the Goods and Services Tax (GST), has influenced trade dynamics with both China and the U.S.

Geopolitical Tensions

Ongoing geopolitical issues, such as border disputes between India and China and the U.S.-China rivalry, pose significant challenges. These tensions can lead to protectionist policies that impact trade volumes and international collaborations.

Economic Disparities

Differences in economic development and technological advancement create disparities that complicate trade relationships. While China has established itself as a global manufacturing hub, India is still developing its infrastructure and technological capabilities.

Conclusion

The trade relationships among India, China, and the U.S. are marked by complexity and interdependence, shaped by economic interests and geopolitical factors. While challenges such as trade imbalances, regulatory barriers, and geopolitical tensions remain, there are also significant opportunities for collaboration and growth. By embracing innovation, sustainable practices, and strategic partnerships, these countries can navigate the intricacies of their trade dynamics, ultimately contributing to a more stable and prosperous global economy. The future of trade among India, China, and the U.S. will require careful balancing of interests, fostering cooperation while addressing the inherent challenges in their relationships.

Kunal Kapur
MBA 1st Semester

Advancement of Technologies in the Future

The rapid pace of technological innovation in the last few decades has fundamentally reshaped every aspect of modern life, from communication to healthcare, and this transformation shows no signs of slowing down. As we look toward the future, the continued advancement of technologies promises to create even more profound changes, bringing with it opportunities and challenges. From artificial intelligence to biotechnology, the future of technology holds a vision of a smarter, more connected, and more efficient world.

One of the most significant areas of advancement is artificial intelligence (AI). AI has already begun transforming industries such as manufacturing, healthcare, and finance by automating tasks and making data-driven decisions faster than humans can. In the future, AI will likely become even more integrated into our daily lives, powering everything from self-driving cars to personalized education systems. However, as AI grows more powerful, ethical questions surrounding its use will also become more pressing, including issues like job displacement and privacy concerns.

Another breakthrough area is quantum computing, which has the potential to revolutionize how we process information. Unlike traditional computers, which process data in bits (either a 0 or a 1), quantum computers operate on qubits, allowing them to perform complex calculations at speeds unimaginable today. In the coming decades, quantum computing could enable advances in fields like cryptography, drug discovery, and climate modeling, solving problems that are currently too complex for even the fastest supercomputers.

In the realm of biotechnology, advances in gene editing and synthetic biology are poised to revolutionize healthcare and agriculture. Technologies like CRISPR have already opened up possibilities for curing genetic diseases and creating disease-resistant crops. In the future, we may see the development of personalized medicine, where treatments are tailored to an individual's genetic makeup, vastly improving healthcare outcomes. Meanwhile, the creation of lab-grown meat and other sustainable food sources could help address global food security and reduce environmental impacts.

5G and beyond will drive the next wave of digital connectivity, enabling faster internet speeds, reduced latency, and more reliable communication. This will pave the way for advancements in virtual and augmented reality, making experiences like virtual meetings and remote surgery more immersive and seamless. As cities and infrastructure adopt these technologies, the vision of a fully interconnected world, where smart cities optimize resources and improve quality of life, will become a reality.

One of the most exciting yet challenging areas of technological advancement is in space exploration. The development of reusable rockets and space tourism is already underway, but the future holds the possibility of interplanetary travel and colonization. As technology continues to push the boundaries of space exploration, we may see missions to Mars, asteroid mining, and even the discovery of extraterrestrial life.

As promising as these advancements are, the future of technology also brings with it significant challenges. Issues like cybersecurity, the ethical use of AI, environmental sustainability, and the potential for social inequality are critical concerns that must be addressed. Ensuring that technological progress benefits all of humanity, rather than exacerbating existing divides, will require thoughtful regulation, international cooperation, and a commitment to responsible innovation.

In conclusion, the future of technology is both exciting and complex, filled with potential for life-changing innovations. From AI and quantum computing to biotechnology and space exploration, advancements in these fields will continue to reshape our world in ways we can hardly imagine. However, with great power comes great responsibility, and it is crucial that we navigate this future thoughtfully, ensuring that technology serves the greater good while addressing the challenges it may bring. The future of technology holds the key to a more connected, intelligent, and sustainable world.

NabiyaFaruqi
B.Tech CSE

Love is in the Air

What is love? Whenever this question comes to your mind there are several answers to describe love, for someone love is the most beautiful chapter of their life , love can be a blessing of happiness but for me love is like " Meeting new people for 365 days but I still choose you to be my side everyday". As you get older, finding love becomes complicated, when I was young I thought I had a lot of time to find. At times, I even felt as if I have found love but then , life takes us in different directions, somewhere in time where we are pushing ourselves to maintain a balance between our personal and professional life. Love can't be found in every relationship we ever have. We did everything as they wanted to do us, from listening to their silly rants to grand gestures, waking up whole night for their call just to know that they are not feeling lonely anymore, but real love is rare. It isn't found at every café or library in the corner of this city. It isn't a right swipe or a hook up away, there are many things which speaks about true love but I feel in the era of online dating and hookup culture people will never know the worth of true love unless the best memories of their life are gone forever.
Love is like a dagger, a powerful weapon which can destroy a person standing far away and even the ones who are closer to us. Love can be seen through are own eyes, its really very beautiful, until it gives wound, and at the end when we wish to get it back , we realize it has gone forever

Rishav Sharma
B.Tech AI-DS

Natural Language Processing: Bridging the Gap between Humans and Machines

Natural language processing (NLP) is a branch of artificial intelligence that focuses on the interaction between computers and human language. This helps machines understand, interpret, and produce human language in a meaningful and useful manner. NLP has applications in many fields, such as machine translation. sentiment analysis Message summarization and chatbots Key elements of NLP: Text Analysis: In NLP, text is broken down into components such as words, sentences, and paragraphs. This process helps the device identify the basic structure and meaning of the text. Natural Language Understanding: This component involves understanding the context, intent, and meaning behind the text. NLP algorithms analyze the syntactic and semantic properties of the text to extract relevant information. Natural Language Generation: NLP systems can generate human-like text such as summaries, reports, or creative content. It involves using language models and templates to create coherent and informative sentences. Application of NLP: Machine Translation: NLP is used to translate text from one language to another. By analyzing the source text and generating equivalent text in the target language, NLP systems can facilitate communication across different cultures. Sentiment Analysis: Sentiment analysis helps determine the emotional tone of a message. By analyzing words, phrases, and context, NLP algorithms can determine whether a message expresses positive, negative, or neutral emotions. Summary of text: NLP can be used to create concise summaries of longer sections of text. Identifying the highest priority Challenges and Future Directions: Ambiguity: Natural language is inherently ambiguous, and NLP systems can struggle to interpret text correctly in the absence of context or additional information. Contextual Understanding: Developing NLP systems that can understand the nuances of context and real-world knowledge is a significant challenge. Ethical Considerations: The use of NLP raises ethical concerns, such as privacy, bias. As NLP continues to evolve, it is expected to play an increasingly important role in various aspects of our lives. By bridging the gap between humans and machines, NLP has the potential to revolutionize communication, information processing, and decision-making.

Jaskirat Singh
B. Tech CSE

Is Today's Modern Al/Generative Al the Real Artificial Intelligence?

Artificial Intelligence (Al) is a transformative force shaping the future of technology, industries, and human experiences. The term "Al" is composed of two words: "artificial," meaning something that is made or produced by human beings rather than occurring naturally, and "intelligence," is the ability to acquire and apply knowledge and skills. In its ideal form, Al should have the capacity to think, learn and adapt in ways similar to humans. However, a crucial debate has emerged regarding whether today's modern Al, particularly Generative Al (GenAl), truly meets this definition of intelligence. Generative Al models such as OpenAl's GPT series, Google's BERT, and others have demonstrated extraordinary capacities in generating human-like text, images, and even creating music. However, these models are fundamentally dependent on the data provided to them and the instructions or prompts given by humans. They don't possess the capability to independently acquire knowledge of the environment or generate original knowledge without relying on the training data they were fed. Generative Al models are trained on massive datasets, learning patterns in language or images to produce outputs based on prompts. For example, when prompted to write an essay, a GenAl model predicts the most likely next word or phrase based on its training data. However, this does not mean the Al "understands" the content it generates. It is merely following statistical patterns, not reasoning or applying independent thought. This leads to the key limitations of modern Al: 1. Lack of Understanding: Generative Al can produce coherent text or images, but it doesn't comprehend what it creates. It lacks self-awareness or a deeper understanding of context. 2. No Independent Learning: Unlike humans, who can learn continuously from their environment, Generative Al models cannot autonomously acquire new knowledge. They rely entirely on the data they've been trained on and are static once their training is complete. 3. Inability to Generalize: While human intelligence can apply knowledge across different domains, Al struggles to generalize beyond its specific training. A model trained for one task cannot easily switch to another without significant adjustments. 4. Ethical Reasoning: Human intelligence is deeply tied to ethical and moral reasoning, something Al lacks. It can generate content that may be biased or inappropriate because it doesn't understand the ethical implications of its actions. Despite these limitations, modern Al has achieved impressive feats, particularly in narrow domains. But to consider it "real Al”-capable of general intelligence, understanding, and independent reasoning-would be a stretch. True Artificial General Intelligence (AGI), which could perform any intellectual task that a human can, remains a distant goal. Researchers are exploring areas like reinforcement learning and embodied Al to push the boundaries of machine intelligence. However, replicating the full complexity of human cognition, which involves not only logical reasoning but also emotional and ethical dimensions, is a monumental challenge. In conclusion, while today's Generative Al is a powerful tool, it does not represent "real" Al in the sense of true human-like intelligence. Al remains highly specialized and dependent on human-designed systems and data. The dream of creating machines that can think, learn, and adapt autonomously, like humans, remains an ongoing pursuit in the world of Al research.

Bhavey
B.Tech CSE

The Heart behind the Room

In quiet rooms where hope resides,
A surgeon's hands, though skilled, confide,
In the steady grace of steel and wire,
A robotic arm, calm, won't tire.

Where once hands shook in moments tense,
It moves with certainty, immense.
No pulse to race, no nerves to break,
It holds each life for healing's sake.

Yet behind its moves, we humans stand,
Guiding with heart, with steady hand.
For it's not just steel that shapes the care,
But the love we give, the weight we bear.

From miles away, across the air,
A distant surgeon whispers prayer,
Their hands unseen, yet spirit known,
Through this machine, their touch is shown.

And when the patient strives to rise,
A robotic arm, with human eyes,
Guides them back, step by step,
With patience only love has kept.

So though it's metal that we see,
It's human heart and empathy,
That flows within each wire and gear,
Bringing us hope, dissolving fear.

Harjot Singh
B.Tech (AI & ML)

“Plan Your Own Path – Why and What is in Your Hand ”

Choosing the right academic stream is a crucial decision that can shape your future. With various options available—science, commerce, and humanities—it’s important to make an informed choice that aligns with your interests and career goals. Here in this article, we will collectively discuss on the importance of choosing right path for yourself.

We start with a question on “What basis you decide to take this course?”

Your uncle tells you that it is profitable or some of your ‘bhaiya’ told you ,that this course has much more scope for success.!! Did you really ever think, what you want to do, what is the actual thing that really attracts you towards your life purposes.

Think of a spicey butter chicken recipe of your uncle, he is telling you how to make it, how to cut the chicken, how to boil that at a proper temperature, and here comes you, the expert, who exactly copied his words, but here comes the twist ; you’re are a pure vegan.

Same as that delicious butter chicken is not for you , same is the path shown by others is not for you. All these years of struggle is waste since you are a vegan.

Main problem what I feel while asking the same question to my fellow mates and juniors, I find that people are capable and even we have experts that can do anything you ask them to do but they are not doing it with their full potential and yet results in failure. I know that many minds will recite the quote “that failure is the stairs to success” bla! bla! bla! But let me tell you that failure is the steps to success for only those who want it, who fight for it, who desire it.

Success is not that what many people things success is; getting wealthier having Porsche, Mercedes, BMW’s, AUDI’s or any other fake luxuries. But in actual it is what one can say actual luxury is; having peace in life, confidence, power of doing one wants, freedom. You know what, if we focus on the fact that people already had many luxuries in medieval times; but still they were not free to do what they want to and thus this led to a war, and this is why we need to save ourselves from the cold war which can be happening inside our hearts.

At last, I just want to conclude that it is not important what is at the end, important is how you get it. It like that “if he wants to, he will”.

There is an ‘I’ and a ‘M’ in “IMPOSSIBLE”, this is what it makes it different from others; and determine its personality. It’s not compulsory that if you have done B-Tech : then in order to earn more success (in their terms) you have to do MBA, you can switch to M-Tech ;or you can even do nothing but gain experience in that two years and learn different new skills. It’s always about you, and how you make yourself valuable. REMEMBER!!! Escape from herd mentality.

MaanyaVerma
B-Tech AI&DS

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ENGINEERING COLLEGE
CGC, LANDRAN, MOHALI

Building Careers. Transforming Lives.

The Communiqué

(Capturing Moments, Preserving Memories)

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