

# DEPARTMENT OF INFORMATION TECHNOLOGY

## MESSAGE FROM HOD DESK



The Information Technology Department is committed to empowering students from diverse backgrounds by bridging the gap between urban and rural education through inclusive and innovative learning opportunities. Its educational approach goes beyond traditional classroom teaching, fostering a culture of creativity, critical thinking, and problem-solving that encourages students to think independently and innovatively.

The department strongly focuses on both personal and professional growth, offering a wide range of enriching activities such as technical workshops, hackathons, leadership programs, and career development initiatives. Along with building strong technical expertise, the faculty emphasizes the development of essential soft skills, teamwork, and ethical values to shape socially responsible and well-rounded individuals.

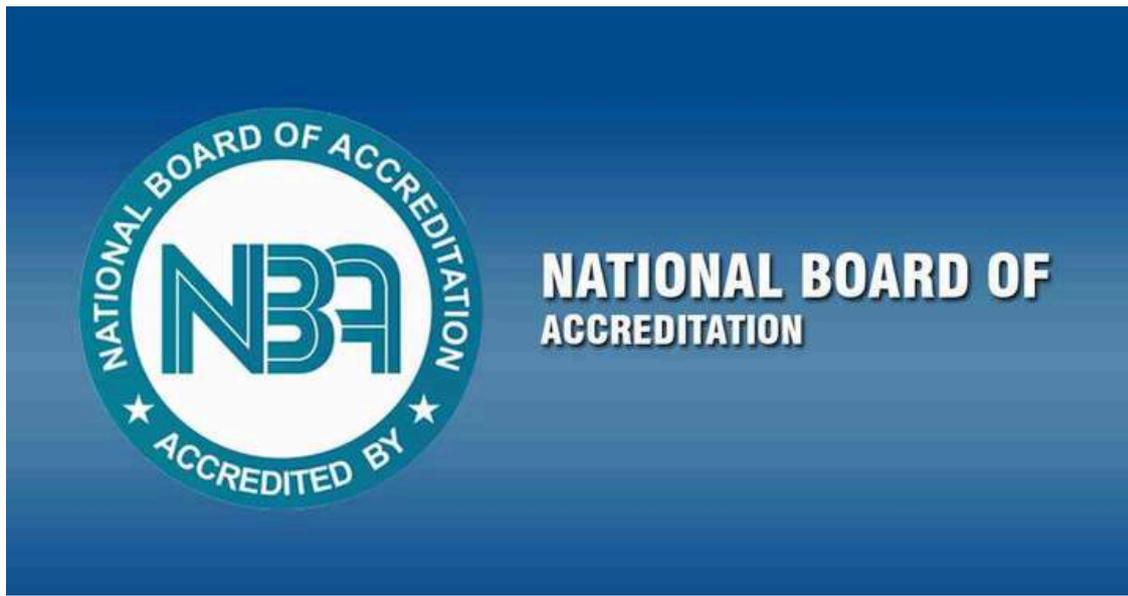
Serving as a center of excellence, the Information Technology Department is dedicated to preparing future-ready professionals who can address global challenges, contribute meaningfully to society, and emerge as leaders in technology and beyond.

**Dr. K. S. Mann**

# DEPARTMENT AT

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# GLIMPSE



**Program Accreditation (Tier-I) by National Board of Accreditation (NBA)**

<b>UG ENGINEERING PROGRAM</b>	<b>PERIOD OF VALIDITY</b>
INFORMATION TECHNOLOGY	Academic Years 2025-2026 to 2027-2028 i.e. upto 30.06.2028

# FACULTY ACHIEVEMENTS

(SINCE JULY 2025)

## DR. K.S. MANN

- Delivered an expert lecture in CGC Landran, Department of Computer Science and Engineering in November, 2025
- Patent Awarded: Smart Helmet, Design No:382600-001

## DR. AKSHAY GIRDHAR

- As per GAPC Version 4.0 adopted by NBA, Delivered an Expert talk on topic “Pre-Qualifiers for TIER-I UG(Engineering)” at GNDEC.
- Delivered an Expert talk on various criterias of SAR TIER-I UG(Engineering) GNDEC as GAPC Version 4.0 adopted by NBA, New Delhi.

## DR. PANKAJ BHAMBRI

- He has been awarded as the TOP 2% SCIENTISTS,

## DR. AMIT KAMRA

- Deliver expert talk in Atal FDP at IKG PTU Jalandhar on the topic of medical image processing and applications.

## PF. RANDEEP KAUR

- Title of the Patent / Design: AI-POWERED WALL-MOUNTED DEVICE FOR SUPPLY CHAIN & LOGISTICS MANAGEMENT Design No. 432767-001

## PF. RUPINDER KAUR

- Presented Research Paper — “A Comprehensive Review of Machine Learning Approaches for Agricultural Crop Yield Forecasting: Emerging Trends and Novel Methodologies” in 16th IEEE International Conference on Computing, Communication and Networking Technologies (ICCCNT 2025), IIT Indore, India

## PF. SACHIN BAGGA

- Completed online workshop Signal Classification using Deep Learning by Ms. Shanthi and Ms. Sragdhara Senior Online Course Developer , Mathworks.
- Completed Five Day GIAN course on “AI HARDWARE : Architectures and Design” Organised by Integrated Circuit Reliability , Security and Quality Lab (IC - ResQ Lab) , Electrical Engineering Department , IIT Jammu, India during 13<sup>th</sup> - 17<sup>th</sup> january , 2025.
- PH.D. Forum Presentation - Ph.D thesis work titled Secure and Resilient NoC Architecture against hardware Trojan Attacks at the Ph.d forum, 29<sup>th</sup> International Symposium on VLSI Design and Test (VDAT), held at Chandigarh , India , during 7<sup>th</sup> - 9<sup>th</sup> August 2025.
- Won 3<sup>rd</sup> Position in “BioHack 3D, CSAW’24 INDIA” organized by C3iHub, IIT Kanpur.

## DR. JAGDEEP SINGH

- Dr. Jagdeep Singh was awarded a patent titled “ IoT Enabled Cybersecurity Device ” (Patent No. 423830-001).
- Dr. Jagdeep Singh serves as a reviewer for various SCI/SCIE indexed journals.

# PUBLICATIONS

FACULTY NAME	TITLE OF THE PAPER / CHAPTER / PROCEEDINGS	NAME OF JOURNAL / CONFERENCE / BOOK	LINK TO THE NOTIFICATION IN UGC ENLISTMENT OF THE JOURNAL
PF. JAGDEEP SINGH	Renewable Energy Optimization for Distributed EV Charging Stations Using HBA and Smart Contracts	IEEE Internet of Things	<a href="https://ieeexplore.ieee.org/abstract/document/10938571/authors#authors">https://ieeexplore.ieee.org/abstract/document/10938571/authors#authors</a>
DR. PANKAJ BHAMBRI	nBLAST-JC: An accelerated deployment of nucleotide BLAST on high-performance cluster	Heliyon	<a href="https://www.cell.com/heliyon/fulltext/S2405-8440(25)00246-4">https://www.cell.com/heliyon/fulltext/S2405-8440(25)00246-4</a>
PF. PALWINDER KAUR	Deep Learning In Medical Imaging: Enhancing Diagnostic Accuracy	International Journal of Environmental Sciences	<a href="https://theaspd.com/index.php/ijes/article/view/3048">https://theaspd.com/index.php/ijes/article/view/3048</a>
PF. MOHANJIT KAUR	Comparative Analysis of an AI-Based Diagnostic System for Automated Detection of Diabetic Retinopathy	International Journal for Research trends and Innovation	<a href="https://www.ijrti.org/papers/IJRTI2509111.pdf">https://www.ijrti.org/papers/IJRTI2509111.pdf</a>
PF. RANDEEP KAUR	Deep Learning In Medical Imaging: Enhancing Diagnostic Accuracy	International Journal of Environmental Sciences	<a href="https://theaspd.com/index.php/ijes/article/view/3048">https://theaspd.com/index.php/ijes/article/view/3048</a>
PF. RANDEEP KAUR	Comparative Analysis of an AI-Based Diagnostic System for Automated Detection of Diabetic Retinopathy	International Journal for Research trends and Innovation	<a href="https://www.ijrti.org/papers/IJRTI2509111.pdf">https://www.ijrti.org/papers/IJRTI2509111.pdf</a>

# EXPERT TALK

( SINCE JULY 2025 )

FACULTY NAME	WORKSHOP TITLE	VENUE	DATE
<b>DR. AMIT KAMRA</b>	Artificial Intelligence for Research: Tools, Techniques, and Trends	Central University of Punjab, Bathinda	13 <sup>TH</sup> - 18 <sup>TH</sup> July , 2025
<b>PF.SACHIN BAGGA</b>	Project Writing: From Idea to Proposal	AadGrow Foundation,Uttar Pradesh	2 <sup>nd</sup> November, 2025
<b>PF.SACHIN BAGGA</b>	Capture the Flag(CTF) - Preliminary Round	UST GenCys 2025 Conference	2 <sup>nd</sup> August, 2025
<b>DR.PALWINDER KAUR BHANGU</b>	From Logic to Learning : The Foundations of AI	Quest Group of Institutes	18th September 2025
<b>PF.SACHIN BAGGA</b>	VLSI Design and Test (VDAT)2025	Hotel Shivalik View, Chandigarh	7 <sup>th</sup> - 9 <sup>th</sup> August 2025
<b>PF. SACHIN BAGGA</b>	Course on Trusted Circuits Foundations and Frontiers of Hardware Security	NIT, Rourkela	1 <sup>st</sup> - 5 <sup>th</sup> December 2025
<b>DR. AMIT KAMRA</b>	Medical Image Processing and Applications	IKG PTU Jalandhar	18 DEC 2025

# FACULTY DEVELOPMENT PROGRAMS

## ATTENDED

FACULTY NAME	FDP TITLE	FDP DURATION
PF. SIDHARATH JAIN	AI Applications in VLSI Design	14-07-2025 to 18-07-2025
PF. AMIT KAMRA	Emerging Trends in Health Care & Med-Tech: Innovation for a Better Future	15-12-2025 to 20-12-2025
PF.SACHIN BAGGA	Malware Analysis	25-08-2025 to 01-09-2025
PF. GITANJALI	Quantum Intelligence: Exploring the convergence of Quantum Computing and Artificial Intelligence	15-12-2025 to 20-12-2025
PF. JASPREET KAUR	Programming Fundamentals using Python - Part 1	24 -12 - 2025
PF. GITANJALI	NEP Orientation and Sensitization Program	19-08-2025 to 28-08-2025
Pf. SARABMEET SINGH	Next-Gen Innovations in Advanced Materials : A Multisector approach in Punjabi	09-10-2025 to 11-10-2025
PF. HARPREET KAUR	Securing the Future : Cyber - Physical Systems and Cybersecurity in the Digital age	08-12-2025 to 13-12-2025
PF. JASPREET KAUR	Intelligent Systems and Generative AI : Advancements in Deep Learning, Robotics, and applications	01-12-2025 to 06-12-2025
Pf. SARABMEET SINGH	Securing the Future : Cyber Physical Systems and cyber Security in Digital Age	08-12-2025 to 13-12-2025

# STUDENTS WHO HAVE SUCCESSFULLY CLEARED VARIOUS NPTEL MOOC'S COURSES

SNO.	NAME	COURSE
1	ARMAAN WADHWA	INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL INTERNET OF THINGS
2	BRAHAMJOT SINGH	DATA ANALYTICS WITH PYTHON
3.	BRAHAMJOT SINGH	INTRODUCTION TO INDUSTRY 4.0 AND INDUSTRIAL INTERNET OF THINGS
4.	BRAHAMJOT SINGH	ETHICAL HACKING
5.	BRAHAMJOT SINGH	APPLIED ACCELERATED ARTIFICIAL INTELLIGENCE
6.	TARANPREET KAUR	SOCIAL NETWORKS
7.	ARMAAN WADHWA	PRIVACY AND SECURITY IN ONLINE SOCIAL MEDIA
8.	ARMAAN WADHWA	APPLIED ACCELERATED ARTIFICIAL INTELLIGENCE
9.	JASHANJOT SINGH	PROBLEM SOLVING THROUGH PROGRAMMING IN C

# MAJOR PROJECT EXHIBITION 2025



Guru Nanak Dev Engineering College, Ludhiana  
Department of Information Technology



## MAJOR PROJECT EXHIBITION 2025



✉ [itian.club\\_gndec@gmail.com](mailto:itian.club_gndec@gmail.com)



[itian.club\\_gndec](#)

# WINNERS

1<sup>st</sup>

## PROJECT: Skill Stack AI



### TEAM MEMBERS

Amrinder Singh Bhatt

Mayank

Devesh Sharma

2 PROJECT: Journey Craft



### TEAM MEMBERS

Himank Handa

Garv Singla

Harish Kumar

Manik Vinayaik

3<sup>rd</sup> PROJECT: A Novel Framework for Global Accessibility of 90.8 MHz FM-CRS



### TEAM MEMBERS

Brahamjot Singh

Satbir Singh

# GENERAL UPDATES

- **New Building, New Beginnings:** This academic year marks a proud milestone for our institution as we shifted into the newly constructed building, providing students with better facilities, modern classrooms, and improved learning spaces.
- **Shaping Growth Through Guidance and Care:** In addition to infrastructural advancements, the college has placed a strong emphasis on building meaningful connections with parents through timely Parent-Teacher Meetings (PTMs). These interactions serve as a bridge between faculty and families, ensuring continuous feedback, collaborative decision-making, and the overall academic progress of students.
- **A Step Forward: Learning, Guidance, and Connection:** To further strengthen academic support, the college has organized special guidance sessions for B.Tech I.T. students. These sessions are designed to provide research insights, career counseling, and mentorship from experienced faculty members. The initiative has been well-received, as it empowers undergraduate students to navigate their academic journeys with clarity and confidence.



# INDUSTRY INSTITUTE INTERACTIONS

**INDUSTRY: PUNJAB STARTUP FAIR**

**FACULTY INCHARGES: MR.ADIRAJ AHLUWALIA**

**TO PROVIDE STUDENTS THE REAL WORLD EXPOSURE**



**INDUSTRY: CICU**

**FACULTY INCHARGES: DR.TALWINDER SINGH**

**TO PROVIDE STUDENTS THE REAL WORLD EXPOSURE**

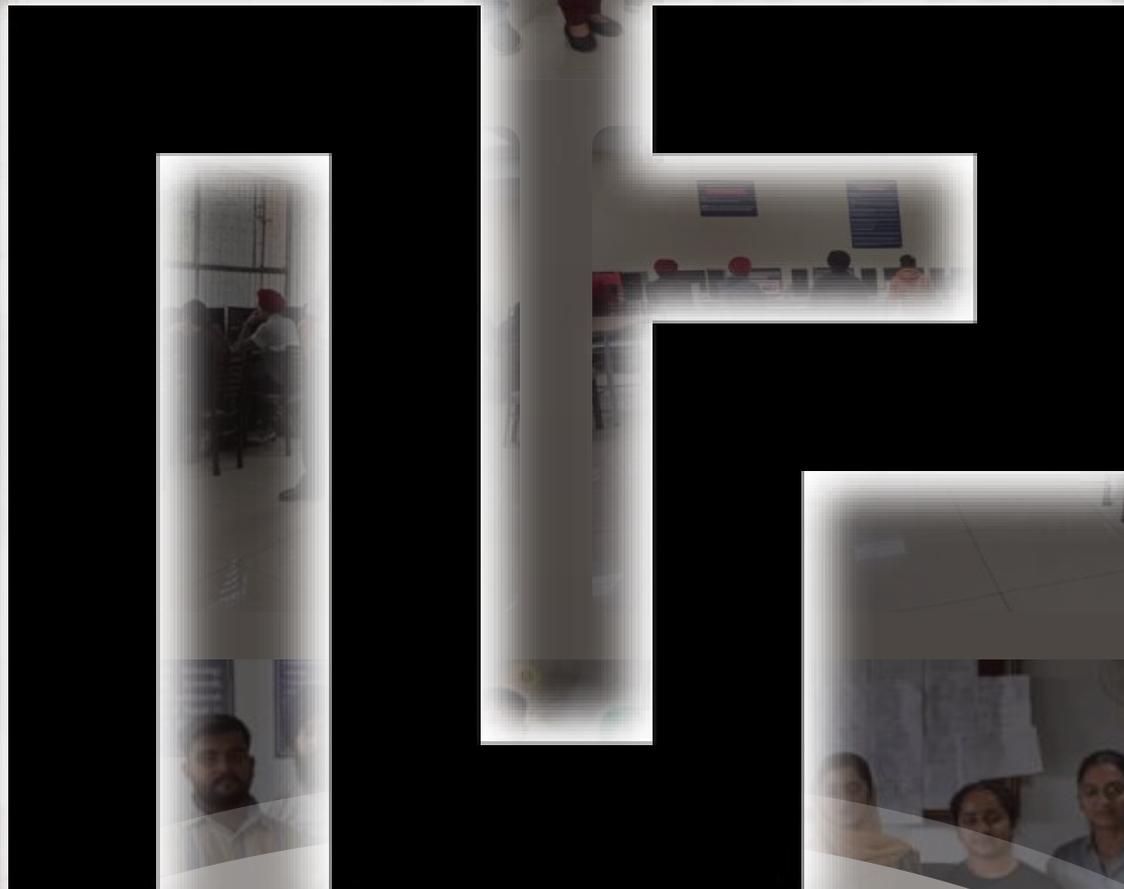


# PLACEMENTS

SNO.	NAME	COMPANY
1	SALONI	BOOKING KOALA
2	TARSEM SINGH	BOOKING KOALA
3	ASHMEET KAUR	INFOSYS LIMITED
4	AVLEEN KAUR	INFOSYS LIMITED
5	BRAHAMJOT SINGH	INFOSYS LIMITED
6	CHHAGUNDEEP SINGH	INFOSYS LIMITED
7	HIMANK HANDA	INFOSYS LIMITED
8	INDERJEET KAUR	INFOSYS LIMITED
9	MANIK VINAYAK	INFOSYS LIMITED
10	MAYANK SHARMA	INFOSYS LIMITED
11	NAMAN GUPTA	INFOSYS LIMITED
12	PALAK SHARMA	INFOSYS LIMITED

SNO	NAME	COMPANY
13	PRABHJOT	INFOSYS LIMITED
14	SATBIR SINGH	INFOSYS LIMITED
15	SHIVAM KUMAR YADAV	INFOSYS LIMITED
16	TARUNPREET KAUR	INFOSYS LIMITED
17	VAIBHAV SHARMA	INFOSYS LIMITED
18	VIVEK RAUTELA	INFOSYS LIMITED
19	UTKARSH KUMAR	INFOSYS LIMITED (DIGITAL SPECIALIST ENGINEER)
20	AMRINDERDEEP SINGH BHATT	JOSH TECHNOLOGY GROUP
21	HARDEEP SINGH	75 WAY TECHNOLOGIES LTD.
22	HARISH KUMAR	75 WAY TECHNOLOGIES LTD.
23	PRIYANSHU KUMAR GUPTA	75WAY TECHNOLOGIES PVT. LTD.
24	DEVESH SHARMA	JOSH TECHNOLOGY GROUP
25	ANMOL	DENSO
26	ISHPREET SINGH	ARGUSOFT
27	SANYA SRIVASTAVA	ARGUSOFT

# “ ITIAN CLUB ”



**ITian Club is a departmental club of Department of Information Technology, GNDEC. It works under the guidance of Prof. Harminder Kaur (Assistant Professor, IT). The club is responsible for conducting Technical events, promoting the new technology and helping students learn teamwork**

# Psychops

This program was organised on 19th September, 2025 as a hands-on workshop titled “PSYCHOPS – The Human Factor in Cyber Reconnaissance.” The session was conducted by Er. Sarabmeet Singh Masson, Assistant Professor.

The poster is for a workshop titled "PSYCHOPS: THE HUMAN FACTOR IN CYBER RECONNAISSANCE". It is organized by Guru Nanak Dev Engineering College, Ludhiana, Department of Information Technology. The workshop is a hands-on session where participants should bring their own laptops. Registration is available via a QR code. The workshop is led by Er. Sarabmeet Singh Masson, an Assistant Professor. The event is scheduled for 19 September 2025, from 2:30 PM to 4:30 PM, at the PL Lab PG Block. Contact information is provided as +91 6239 199 006.

Guru Nanak Dev Engineering College, Ludhiana  
Department of Information Technology

# PSYCHOPS

THE HUMAN FACTOR IN CYBER RECONNAISSANCE

- ✓ HANDS ON WORKSHOP
- ✓ BRING YOUR OWN LAPTOP

SCAN FOR REGISTRATION



**ER. SARABMEET SINGH MASSON**  
Assistant Professor

**DATE**  
19 September 2025

**TIME**  
2:30PM TO 4:30PM

**VENUE**  
PL Lab PG Block

**CONTACT**  
+91 6239 199 006

The workshop focused on the importance of human behaviour and psychological aspects in cyber reconnaissance. It provided participants with practical insights into how human factors influence information gathering and cyber operations. Through interactive and hands-on activities, the session enhanced participants’ understanding and practical knowledge of the human element in cyber reconnaissance.

# Coding Ninjas x ITian club



The ITian Club introduced the Coding Ninjas 10X Club Student Chapter to the students of the Department of Information Technology, Guru Nanak Dev Engineering College, Ludhiana. The session aimed to make students aware of the learning opportunities offered through this collaboration. The 10X Club focuses on enhancing students' coding, problem-solving, and technical skills through regular coding contests, workshops, and interactive sessions.

The ITian Club members explained how this initiative helps students connect with a nationwide coding community and learn directly from industry professionals. They encouraged students to actively participate in upcoming events and challenges to improve their practical knowledge and confidence. Overall, the introduction of the Coding Ninjas 10X Club was a great step towards promoting a strong coding culture within the department.

# Cracking the code

The poster is for an event titled "Cracking the Code: How to Succeed in IT Placements". It is organized by the ITian Club of Guru Nanak Dev Engineering College, Ludhiana, Department of Information Technology. The event is scheduled for 10 October 2025, from 12:30 PM to 1:30 PM, at FIT 2. The guest speaker is Mr. Ansh Kumar, a System Engineer at Infosys. The poster includes a circular portrait of Mr. Ansh Kumar and a description of the session: "Join us for an immersive experience on placement preparations, interview experience and career guidance to excel in Leading IT Companies." The poster also features the college logo, the ITian Club logo, and social media icons for YouTube, Instagram, and Facebook. The contact email is itian.club\_gndec@gmail.com.

Guru Nanak Dev Engineering College, Ludhiana  
Department Of Information Technology

**CRACKING THE CODE**  
*how to succeed in IT Placements*

**Mr. Ansh Kumar**  
SYSTEM ENGINEER, INFOSYS

10 October 2025  
12:30 PM - 1:30 PM  
FIT 2

*Join us for an immersive experience on placement preparations, interview experience and career guidance to excel in Leading IT Companies.*

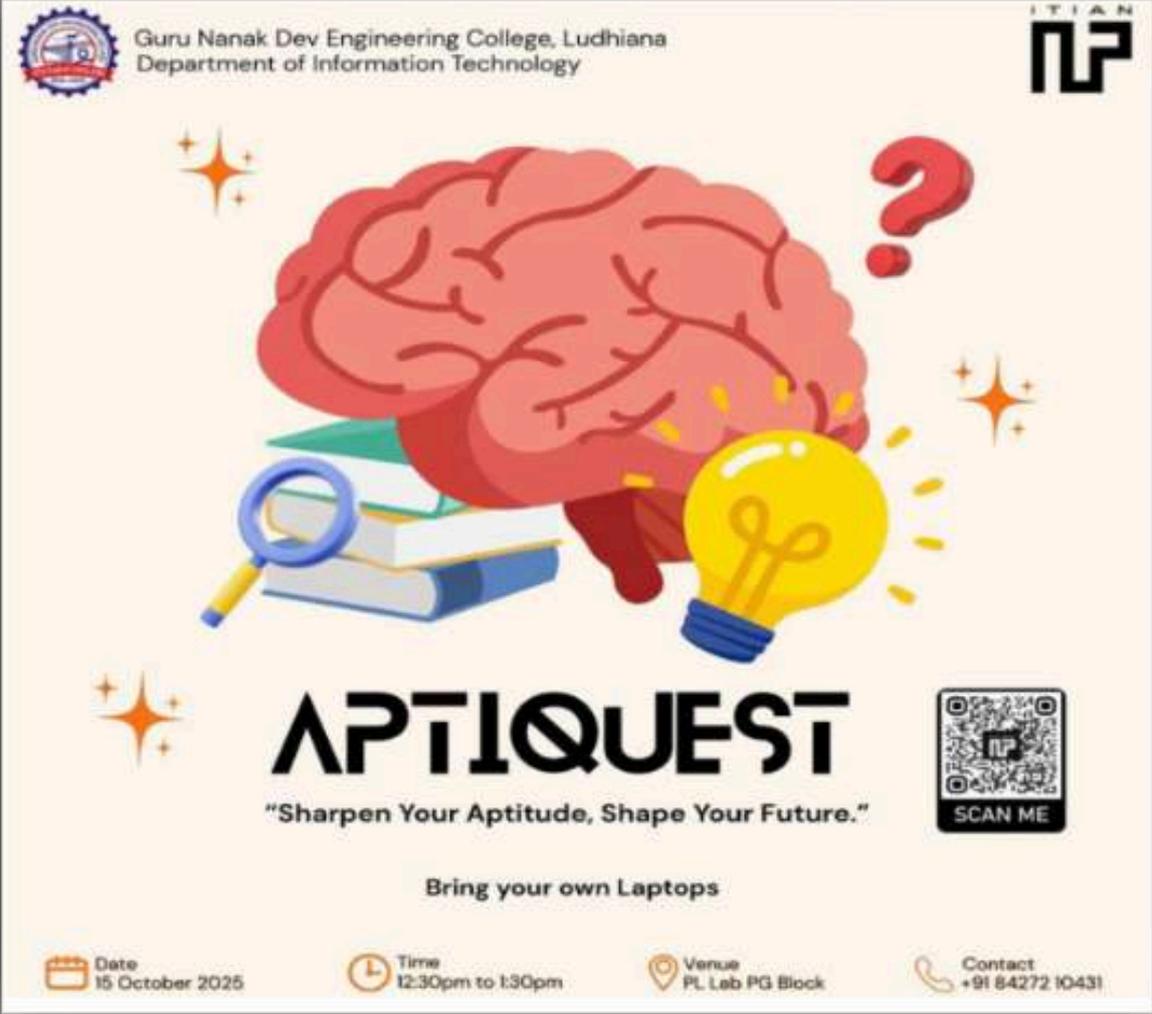
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The ITian Club of Guru Nanak Dev Engineering College, Ludhiana, organised a session titled “Cracking the Code: How to Succeed in IT Placements” on 10th October 2025. The guest speaker, Mr. Ansh Kumar, System Engineer at Infosys, shared his valuable insights and personal experiences from his journey in the IT industry. He guided students on effective placement preparation, interview strategies, and essential skills required to excel in leading IT companies.

The session was highly interactive, as Mr. Ansh Kumar patiently answered all the queries raised by the fourth-year students who attended the event. His motivational talk and practical tips proved to be extremely beneficial for students preparing for their upcoming placements.

# Aptiquest



Guru Nanak Dev Engineering College, Ludhiana  
Department of Information Technology

ITIAN

**APTQUEST**  
"Sharpen Your Aptitude, Shape Your Future."

Bring your own Laptops

Date: 15 October 2025  
Time: 12:30pm to 1:30pm  
Venue: PL Lab PG Block  
Contact: +91 84272 10431

SCAN ME

The ITian Club of Guru Nanak Dev Engineering College, Ludhiana, organised an aptitude-based event titled “AptiQuest – Sharpen Your Aptitude, Shape Your Future” on 15th October 2025. The event was open to students from all departments and aimed to enhance their logical and analytical thinking skills. It consisted of two rounds – the first round included aptitude questions conducted on laptops, while the shortlisted participants advanced to the second round, where they were asked a series of problem-solving and reasoning questions.

The event concluded with the announcement of the top three winners, who performed exceptionally well. Overall, AptiQuest received enthusiastic participation and served as a valuable platform for students to test and improve their aptitude skills.

# Tech Fiesta



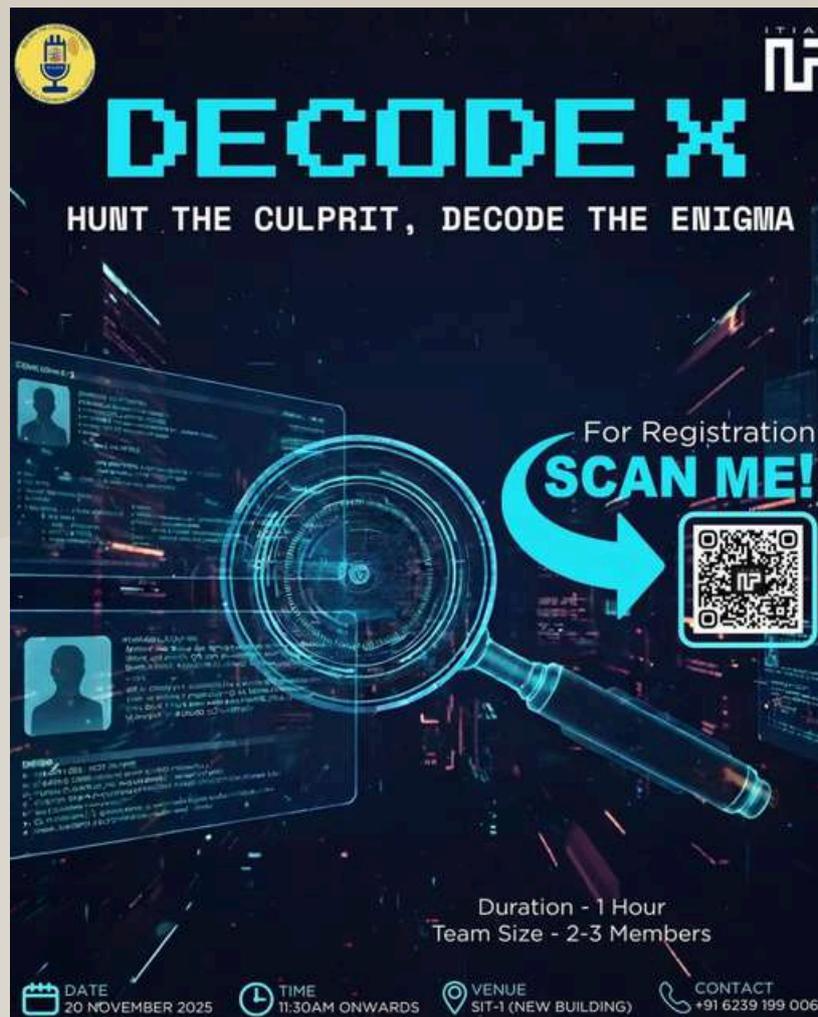
Our society organized an interactive stall called “Tech Fiesta” at the Apex Fair on 30th October 2025 at Guru Nanak Dev Engineering College, Ludhiana. The stall aimed to spark creativity, logical thinking, and curiosity about technology among students. Participants played an engaging number-based game (1 to 5), where each number revealed a unique challenge such as Tech Riddle, Guess the Gadget Sound, Rapid Fire, Guess the Logo, and Pictionary. These activities tested technological knowledge and brand awareness while creating a fun, lively, and competitive atmosphere.

Tech Fiesta received an overwhelming response, with a constant crowd at the stall throughout the event. Students from both schools and colleges actively participated, enjoying the activities and games. Winners were appreciated with pocket diaries for school students and pens for college students. The stall successfully combined entertainment with learning and teamwork, making Tech Fiesta one of the most popular and memorable attractions of Apex Fair 2025.

# Decode X

## ITian Club X FMCRS

Decode X was a two-round, team-based technical challenge designed to test participants' analytical thinking, investigation skills, and cryptographic problem-solving abilities. The event combined elements of digital forensics and classical cryptography, requiring teams to work collaboratively under time pressure



In Round 1, participants were given two digital forensic case files containing system artifacts, logs, metadata, and hidden clues. Teams had to analyze the evidence, reconstruct the timeline, and identify the correct culprit based on digital traces.

In Round 2, qualified teams competed to decrypt and interpret a provided ciphertext. This round tested pattern recognition, cipher-cracking techniques, and teamwork in decoding classical and encoded messages.

Decode X aimed to provide a real-world investigative experience, encouraging problem-solving, coordination, and technical proficiency.

## Glimps of the Event



# HACKNAUTS 2025

## National Level Hackathon

The Department of Information Technology, Causmic club joined Itian club successfully organized HackNauts 2025, a national-level hackathon designed to foster innovation, creativity, and problem-solving among students. Inspired by prestigious competitions like the Smart India Hackathon, the event provided a competitive platform for young technologists from across the country to collaborate, ideate, and develop impactful solutions to real-world challenges.



### Event Highlights

- 188 registrations were received through Devfolio, reflecting strong nationwide interest.
- Participants submitted 140 innovative ideas, showcasing creativity and technical skills.
- After a careful evaluation process, 71 ideas were accepted for the next stage.
- 61 teams confirmed participation, and 56 teams successfully checked in for the final hackathon.

HackNauts 2025 witnessed strong participation from our institution with 38 teams competing.

- The participation reflected a vibrant innovation ecosystem and emphasis on technical excellence.
- After a rigorous evaluation process, 15 teams were selected.
- The selected teams demonstrated outstanding problem-solving abilities, technical proficiency, and creative thinking.
- The achievement highlights the institution's commitment to research, innovation, and real-world application of knowledge.
- HackNauts 2025 was conducted in association with Amazon Web Services (AWS).
- AWS's collaboration enhanced the technological depth and industry relevance of the event.
- Participants gained exposure to advanced cloud solutions, scalable architectures, and industry-grade development practices.

### Universal Sponsors

The event was strengthened by the generous support of our Universal Sponsors:

- Alpex Solar Ltd
- TCC
- Genco Alumni

### Galactic Sponsors

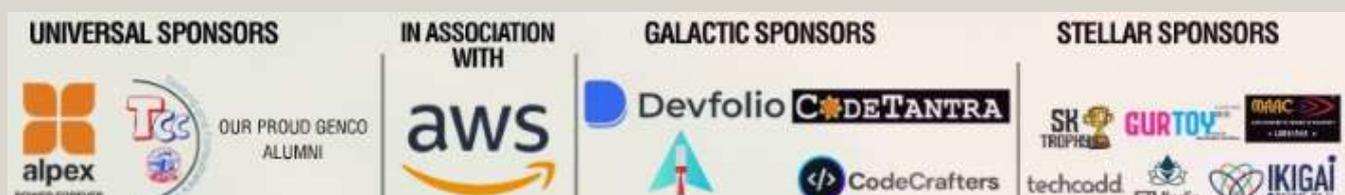
Our Galactic Sponsors played a vital role in enriching the event experience:

- Devfolio
- CodeTantra
- GiveMyCertificate
- CodeCrafters

### Stellar Sponsors

The following Stellar Sponsors contributed significantly to the successful execution of HackNauts 2025:

- Techcadd
- SK Trophy
- GurToy
- MAAC
- Ikigai
- Ethereum India
- Standard Partner



## BIS

- Healthcare Partner
- Prolife Hospitals

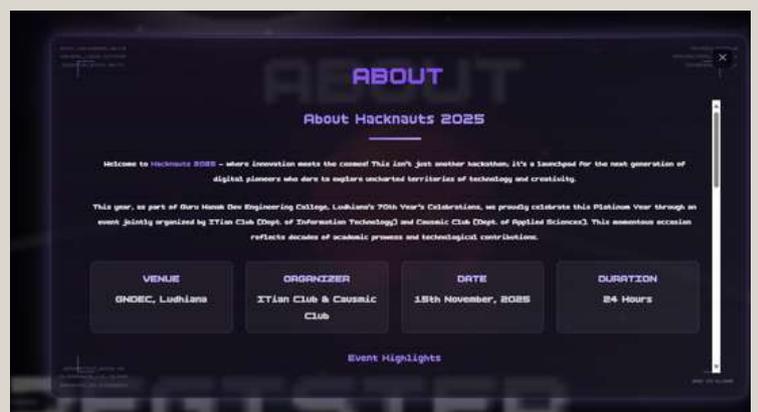
## Community Partners

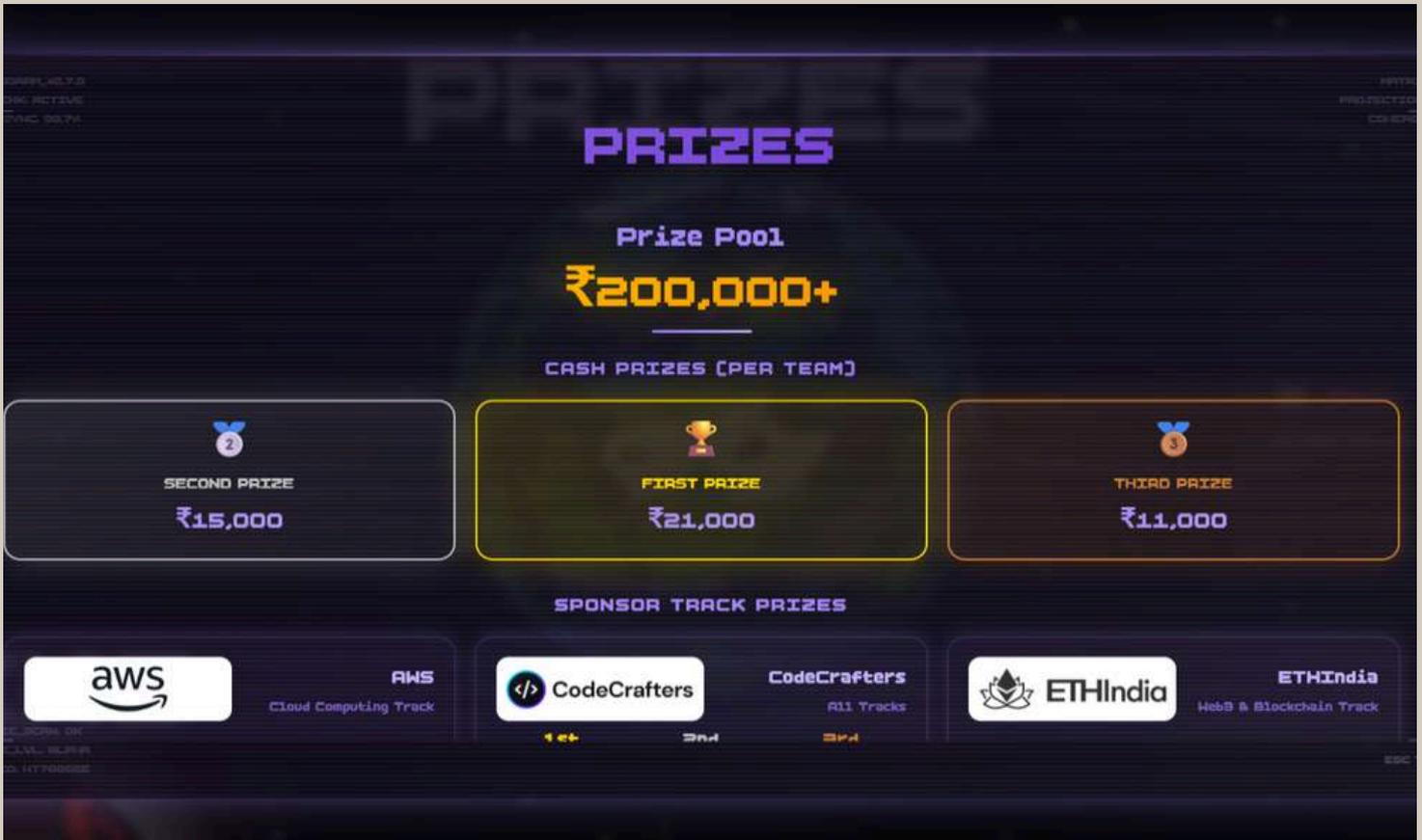
Our Community Partners amplified outreach, engagement, and visibility, ensuring a dynamic and inclusive event ecosystem:

- The Seed Club
- CUupdates
- CUcontent
- The Ascent Circle
- The DevArmy

## Hacknauts website:

<https://hacknauts.devfolio.co/>





# Glimps of the Event





# GNDEC's 90.8 MHz FM-CRS is Going Global!

Our campus radio is getting a major digital upgrade, thanks to students from the Department of Information Technology!

The 90.8 MHz FM-CRS at GNDEC is set to break beyond its 12–15 km broadcast limit. A new Major Project, "The Novel Framework for Global Accessibility of 90.8 MHz FM-CRS", will soon bring our station's voice to a worldwide audience.

This initiative, led by students Brahamjot Singh and Satbir Singh of Department of Information Technology, will integrate new features into our existing website.

Key upgrades will include:

- A new mobile app and live-streaming capability on the website.
- A searchable, on-demand archive of past programs.
- An interactive comment section for real-time listener feedback.

This project will move our beloved station onto a modern, "universally accessible digital footprint," connecting our community and alumni everywhere.

