

**Guru Nanak Dev Engineering College Ludhiana**  
**Department of Applied Sciences**



**Dr. Harpreet Kaur Grewal**  
HoD, Applied Science Department

The Department of Applied Science is a multidisciplinary department, and it is functioning with a team of dedicated faculty members who have been actively engaged in imparting quality teaching of the courses in basic science and humanities for graduating engineering students. The core courses offered being Physics, Chemistry, Mathematics, English and Principles of Engineering Economics and Management. Apart from these undergraduate courses, various other research activities are also going in these disciplines. Currently the department is having research scholars in various subjects. Committed minds are always welcome to join hands to build a strong dynamic and wholesome department. It is an endeavor of this department, so that students find applications of science to everyday life, moral and social understanding.

### **DEPARTMENT AT A GLIMPSE**

This department was established in the year 1957, whose role is to deliver excellent quality education in the subject of Applied Sciences and humanities for the future technocrats of all engineering streams. The department also endeavours to inculcate the scientific temper and the spirit of inquest in students. It inspires the students to realize and therefore apply the physical laws to the growth and development of their fields of study. We intensely think that an educational programme should be able to stimulate the development of a balanced and harmonious personality

of the students. Hence, the educational program of GNDEC has been customised -to suit such necessities.

### **GNE's ACME 2024**

GNE's ACME 2024, an Inter-College Literary and Technical Conclave, was organized by the Causmic Club in celebration of Anand Utsav 24. The event, scheduled on March 5th, 2024, featured Mr. Sanjay Verma, the Project Manager at Prabal TMT Saria, as the esteemed Guest of Honour. The conclave garnered sponsorship from reputable organizations such as Prabal TMT Saria, SK Trophy, Sahni Catering, Deepak Studios, and GNDEC Alumni. With a total of 213 participants representing 15 colleges, GNE's ACME 2024 promised to be a vibrant and enriching gathering, fostering intellectual exchange and showcasing talent across various disciplines.

- ❖ Guru Nanak Dev Polytechnic College, Gill Road remained the overall winner of GNE'S ACME 2024 and received cash prize of Rs. 5,100.
- ❖ Arya College (Boys), Civil Lines remained the 1st Runner-Up and received cash prize of Rs. 3,100.
- ❖ Guru Nanak Khalsa College for Women, Gujarkhan Campus, Model Town remained the 2nd Runner-Up and received cash prize of Rs. 2,100.



### **One Week SDP on Empowering Non-Teaching Staff: Skill Development for Sustainable Growth**

Department of Applied Sciences, under the aegis of Internal Quality Assurance Cell (IQAC), Guru Nanak Dev Engineering College, Ludhiana organised one week SDP on “Empowering Non-Teaching Staff: Skill Development for Sustainable Growth” from September 16-20, 2024. The SDP was organised for Non-teaching staff of GNDEC with the purpose of updating their skills. The SDP was inaugurated by Principal Dr. Sehijpal Singh. In his inaugural speech, he told the participants about the need to upgrade their knowledge and skills from time to time. The opening

day expert session was taken on Dr. Parampal Singh (Head, Business Administration Dept.) on the topic of Office Management Skills. On day-2 of the SDP, Dr. Amit Kamra, from, IT Department delivered talk on Cyber Security who discussed the latest modus operandi used in such crime and how to prevent them. The second session on Day-2 was taken by Er. Gagandeep Singh Sodhi on the topic of basic technical skills at workplace. The first session on Day-3 of SDP was on the topic of life skills by Dr. Arvind Dhingra (Assistant Prof., EE Dept.), while the second session was taken Dr. H. S. Rai, Professor, CE Dept. on the topic of Time Management. On Day-4, first session was taken by Er. Ranjit Singh (SPO) and Sh. Harpreet Singh (Accounts Clerk) on Store and Purchase rules. While the second session was taken jointly by Ms Jasmine Kaur (Assistant Prof. Economics), Ms Nisha Masson (Assistant Prof. English) and Ms Manjot Kaur (Assistant Prof. English). Ms. Jasmine Kaur delivered talk on Quantitative Aptitude, while Ms. Nisha Masson and Ms. Manjot Kaur conducted a session on Group Discussion and Debate. On the concluding day (Day-5), the first session was taken by Mr. Gurmukh Singh, Lab. Supdt. Computer Center on the basic Computer Skills and the final session was taken by Dr. Parminder Singh, Professor CSE and DSW on Student Dealing. During the valedictory ceremony, participants gave their feedback about the program and Principal Sehijpal Singh congratulated the participants for successfully completing the SDP and urged them to implement the learnings of SDP in the routine work activities for more productivity. Dr. Harpreet Kaur Grewal, Head of Applied Sciences Department and Dr. Jagbir Singh, Chairman IQAC shared their views about the SDP. The program concluded with vote of thanks by Dr. Rajvir Kaur, Coordinator of the program.



## **EXTENSION LECTURES, WORKSHOPS, SDP'S AND OTHER ACTIVITIES ORGANISED**

### **Dr. Randhir Singh**

1. Conducted One day event “GNE's ACME 2024, an Inter-College Literary and Technical Conclave’ under Causmic Club, Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on March 5, 2024.
2. Conducted One day event “GNE’S APEX 2024, An Inter-school Multi Event Competition’ under Causmic Club, Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on October 25, 2024.
3. Conducted One day event “Mehndi Stall’ under Causmic Club, Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on October 18, 2024.

### **Dr. Rajvir Kaur**

1. Conducted One day event “GNE's ACME 2024, an Inter-College Literary and Technical Conclave’ under Causmic Club, Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on March 5, 2024.
2. Conducted One day event “GNE’S APEX 2024, An Inter-school Multi Event Competition’ under Causmic Club, Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on October 25, 2024.
3. Conducted One day event “Mehndi Stall’ under Causmic Club, Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on October 18, 2024.
4. Organizing Team Member (Registration and Refreshment) IGKPTU Inter College Basketball Tournament (Men & Women) held at Basketball Courts, GNDEC on October 16-17, 2024.
5. Conducted One day Interactive session on “Skin and Health care and personal hygiene” by Dr. Manisha Mittle, Director, Orison Hospital Ludhiana in College Auditorium, Guru Nanak Dev Engineering College, Ludhiana on 25th September, 2024.
6. Served as coordinator in One Week SDP one week SDP “Empowering Non-Teaching Staff: Skill Development for Sustainable Growth” for Non-Teaching staff organized by

Department of Applied Sciences under the aegis of IQAC, Guru Nanak Dev Engineering College, Ludhiana held from 16-20 Sept, 2024.

**Ms. Jasmine Kaur**

1. Conducted an Extension lecture on the topic Inflation and Monetary Policy from 25<sup>th</sup> September, 2024 to 26<sup>th</sup> September, 2024

**FDP/STC/SDT/CONFERENCES/WORKSHOPS/WEBINARS ATTENDED)**

<b>Sr. No.</b>	<b>Name of the Faculty</b>	<b>Name of the Event</b>	<b>Duration</b>	<b>Date(s)</b>	<b>Organising Institute</b>
1.	Mr. Sukhminder Singh	NPTEL-AICTE online course on “Calculus of Several Real Variables”	8 weeks	Jul-Sep 2024	IIT Kanpur
2.	Mr. Sukhminder Singh	NPTEL-AICTE online course on “Advanced Calculus for Engineers”	12 weeks	Jul-Oct 2024	IIT Kharagpur
3.	Mr. Sukhminder Singh	FDP on “Unveiling Emerging Research Trends in Mathematics”	Two Days	20.8.24-21.8.24	SRM Madurai College for Engineering and Technology, Sivagangai
4.	Dr. Rajvir Kaur	Workshop on “Data Driven Millet Farming: The Role of Information Technology (Emerging Field: Aggrotech and Food Processing)”	3 days	08-08-2024 to 10-08-2024	Guru Nanak Dev Engineering College, Ludhiana.
5.	Dr. Rajvir Kaur	Workshop on “Artificial Intelligence and Punjabi Language: Recent Trends and Challenges Emerging	3 days	06-06-2024 to 08-06-2024	Guru Nanak Dev Engineering College, Ludhiana.

		Field: Advanced Computing”			
6.	Dr. Rajvir Kaur	International Conference on ‘Emerging Trends in Green Energy And Environment Sustainability	2 days	September 26-27, 2024	CGC Landran, S.A.S. Nagar, Mohali

## FACULTY ACHIEVEMENTS

### Mr. Sukhminder Singh

1. Elite and Gold Medal in Online course “Calculus of Several Real Variables”.
2. Elite and Gold Medal in Online course “Advanced Calculus for Engineers”.
3. Topper in Online course “Calculus of Several Real Variables”.
4. Topper in Online course “Advanced Calculus for Engineer”.

### Dr. Rajvir Kaur

1. Judgement during the ‘District Level Exhibition and Project Competition (SLEPC) under Department of Science and Technology’ held at Guru Nanak Dev Engineering College Ludhiana on July 31, 2024.
2. Judgement during the ‘INSPIRE awards- MANAK Scheme under District Level Exhibition and Project Competition (DLEPC) for 2022-23 and 2023-24’ held at Guru Nanak Dev Engineering College Ludhiana from July 5-6, 2024.
3. ‘Hands on session to exploring the Chemistry experiments’ in 3 days Summer Internship Programme on “Skill Development” organized by Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana from June 5-7, 2024
4. Successfully completed the AICTE- SPICES grant.