

**GNDEC Ludhiana – Applied Sciences Newsletter
(Jan- July 2026)**

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

From the HOD's Desk



We are proud to present the achievements, events, and student engagements from January to June 2026. This semester was marked by dynamic participation in academic discussions, outreach workshops, student-led initiatives, and prestigious inter-school events. Our department continues to empower young minds with skills, exposure, and excellence.

– Dr. Harpreet Kaur, Head of Department

Events Attended (FDP's/STCs/SDTs/Conferences/Workshops/Webinars etc.)

Pf. Sukhminder Singh

- One day Workshop on Setting of Quality Question Paper and Evaluation of Answer Sheets on 6th Jan 2026 organized by Dept. of Applied Science and IQAC at GNDEC, Ludhiana.
- One week online FDP on Research Papers to Marketable Products: Writing and Innovation Strategies from 25.2.26-1.3.26 organized by SLIET, Longowal.
- 8 weeks NPTEL-AICTE online course on Basic Linear Algebra from Jan-Mar 2026 organized by IIT Bombay.
- 12 weeks NPTEL-AICTE online course on Advanced Engineering Mathematics from Jan-Apr 2026 organized by IIT Kharagpur.
- Three days Online Workshop on Mastering Latex with AI from 15.4.26-17.4.26 organized by IMPA and IRDI Coimbatore

- One week FDP on AI and Open source tools for teaching Learning Excellence from 18.5.26-22.5.26 organized by GNDE College, Ludhiana.
- One week Online Workshop on Mastering Graph Theory with Advanced Computational Tools from 22.6.26-26.6.26 organized by IMPA and IRDI Coimbatore.

Pf. Karan Bhalla

- Qualified NPTEL-AICTE Online FDP on “Electrochemical Technology in Pollution Control” through Swayam Portal of duration 8 weeks which is equivalent to 1 FDP organized by Indian Institute of Science, Bangalore during Jan-March 2026 session.
- Qualified NPTEL-AICTE Online FDP on “Cell Biology: Cellular organization, division and processes” through Swayam Portal of duration 8 weeks which is equivalent to 1 FDP organized by Indian Institute of Science, Bangalore during Jan-March 2026 session.
- Qualified NPTEL-AICTE Online FDP on “Introduction to complex biological systems” through Swayam Portal of duration 12 weeks which is equivalent to 1.5 FDP organized by IIT, Kharagpur during Jan-April 2026 session.
- Attended One Week Online FDP on “Zero Trust Cloud Security” from 18th May 2026 to 22nd May 2026 conducted CSE Department at Guru Nanak Dev Engg. College, Ludhiana.
- Attended one day workshop on “Setting of question paper and evaluation of Answer sheets” on 6th Jan 2026 organized by Dept. of Applied Science and IQAC at GNDEC, Ludhiana.
- Attended SWAYAM NPTEL STAR INTERACTION WORKSHOP on 18th Jan 2026 conducted by Indian Institute of Technology, Kanpur.
- Attended Three Day Workshop (Hybrid Mode) on “Molecular Modelling using Gaussian and other optimization from 18th to 20th March 2026 organised by Dept. of Applied Science and IQAC at GNDEC, Ludhiana.
- Attended SWAYAM NPTEL STAR INTERACTION WORKSHOP on 11th July 2026 conducted by Indian Institute of Technology, Roorkee.

- Attended and presented research paper at International Conference (Hybrid Mode) on “Advancing Knowledge from Multi disciplinary perspectives in Agricultural, Life Sciences, Engineering and Technology” organized by SIDVI Society for Research and Development, Visakhapatnam, Andhra Pradesh held on 26th and 27th Jan 2026.
- Attended and presented research paper at One day International Conference (Hybrid Mode) on “Global Challenges and Scientific Solutions 2026” organized by SIDVI Society for Research and Development, Visakhapatnam, Andhra Pradesh held on 28th Feb 2026.
- Attended and presented research paper at International Conference (Hybrid Mode) on “Advanced Material Science and Engineering” organized by Santaji Mahavidyalaya, Nagpur and Association of Chemistry Teachers, Mumbai held on 27th and 28th March 2026.



Pf. Mandeep Kaur

- 5 days FDP on “Zero Trust Cloud Security” from 18-22 May, 2026 organized by Department of Information Technology, GNDEC in collaboration with NITTR Chandigarh.

Dr. Rajvir Kaur Sraw

- Two-Day National Workshop on “Recent Trends in Refrigeration & Air Conditioning” from 16-17, July 2026 organized by Department of Mechanical & Production Engineering, GNDEC Ludhiana in collaboration with Blue Star India Pvt. Ltd. And ISHRAE, Ludhiana Sub Chapter.

- One-Week AICTE Recognized Faculty Development Programme Conducted by NITTTR, Chandigarh from 06/07/2026 to 10/07/2026.
- One-Week Faculty Development Programme entitled ‘Cancer Awareness for Community Engagement’ organized by University of Delhi in collaboration with Indian Cancer Society, Delhi Branch from February 10-20, 2026.
- One day Seminar on “Balanced Diet” organized by NSS, Guru Nanak Dev Engineering College, Ludhiana on February 15, 2026.
- One day National Seminar on “Frontiers in Materials Chemistry and Membrane Sciences” organized by M.K. Amin Arts and Science College and College of Commerce in collaboration with Faculty of Science, Maharaja Sayajirao University of Baroda on January 27, 2026.
- One day Seminar on “Setting of Quality Question Paper and Evaluation of Answer Sheets” organized by Department of Applied Sciences with IQAC GNDEC, Ludhiana on January 06, 2026.

Dr. Amarjot Kaur

- Online FDP on Density Functional Theory Computations of Advanced Materials (DFT-Advanced) from 12-6-2026 to 21--6-2026 organized by Centre for Advanced Computational Research, Delhi.
- FDP on Zero Trust Cloud Security from 18-5-2026 to 22-5-2026 organized by GNDEC in collaboration with NITTIR, Chandigarh.
- FDP on UHV-I FDP from 8-1-2026 to 10-1-2026 organized by Department of Applied Sciences, GNDEC, Ludhiana.
- International Conference on Next-Gen Materials for Sustainable Future (ICNMSF-2026) from 4-5-2026 to 6-5-2026 organized by Akal University, Bathinda .
- National Conference on Punjab Science Congress-2025 from 7-2-2025 to 9-2-2025 organized by Khalsa College, Amritsar.
- Workshop on Recent trends in refrigeration & air conditioning from 16-7-2026 to 17-7-2026 organized by Department of Mechanical Engineering, GNDEC Ludhiana.

- Workshop on MOLECULAR MODELLING USING GAUSSIAN AND OTHER OPTIMIZATION TOOLS from 18-3-2026 to 20-3-2026 organized by Department of Applied Sciences, GNDEC Ludhiana.
- Workshop on “Setting of quality question paper and evaluation of answer sheets” on 6-1-2026 organized by Department of Applied Sciences, GNDEC Ludhiana.

Dr. Jaspreet Singh

- One day workshop on Setting of Quality Question Papers and Evaluation of Answer Sheets on 06.01.2026 organized by Department of Applied Sciences, GNDEC, Ludhiana.
- Three –Days Workshop on Molecular Modelling using Gaussian and other Optimization Tools from 18.03.2026 to 20.03.2026 organized by Department of Applied Sciences, GNDEC, Ludhiana (under the aegis of DST, Govt. of India)
- 5 days Online FDP on Zero Trust Security from 18.05.2026 to 22.05.2026 organized by Computer Science and Engineering Department (GNDEC, Ludhiana), NITTR, Chandigarh.

Dr. Jasmeet Kaur

- Online FDP on “Density Functional Theory Computations of Advanced Materials (DFT-Advanced)” from June 12–21, 2026 organized by Centre of Advanced Computational Research, Delhi.
- Online Short-Term Course on “Zero Trust Cloud Security” from May 18–22, 2026 organized by Zscaler Inc. in collaboration with NITTTR Chandigarh and GNDEC, Ludhiana.
- Online STC on “Zero Trust Cyber Associate” on May 20, 2026 organized by Zscaler Cyber Academy, conducted by NITTTR Chandigarh.

- Online STC on “Fundamentals of Cybersecurity (EDU-102)” on May 19, 2026 organized by Zscaler Inc., conducted by NITTTR Chandigarh.
- Three-Day Workshop on “Molecular Modelling Using Gaussian and Other Optimization Tools” from March 18–20, 2026 organized by Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana.
- 3-day offline Self- funded Faculty Development Program (FDP) on Universal Human Values UHV-I on January 8- 10, 26 organized by AICTE in collaboration with GNDEC, Ludhiana.
- One-day workshop on “Setting of Quality Question Papers and Evaluation of Answer Sheets” on January 6, 2026 organized by Guru Nanak Dev Engineering College, Ludhiana.

Pf. Manjot Kaur

- One-day workshop on “Setting of Quality Question Papers and Evaluation of Answer Sheets” on January 6, 2026 organized by Guru Nanak Dev Engineering College, Ludhiana.

Pf. Jasmine Kaur

- One-day workshop on “Setting of Quality Question Papers and Evaluation of Answer Sheets” on January 6, 2026 organized by Guru Nanak Dev Engineering College, Ludhiana.
- Six days international online FDP on “Educating for sustainability: Interdisciplinary Approaches for Resilient Future”, organized by the dept. Of science and Humanities, IES College of Engineering, Chitilapilly, Thrissur, from 15th June to 20th June 2026.

Pf. Neeraj Kumar

- One-day workshop on “Setting of Quality Question Papers and Evaluation of Answer Sheets” on January 6, 2026 organized by Guru Nanak Dev Engineering College, Ludhiana.

WORKSHOP/SEMINARS/EVENTS CONDUCTED:

Dr. Rajvir Kaur

- Coordinated a Three-Day National Workshop under the Department of Science & Technology (DST), Government of India on "Molecular Modelling using Gaussian and Other Optimization Tools" (March 18–20, 2026).
- Coordinated a Three-Day Skill Development Workshop for 10+2 Science Students under the Summer Internship Programme (June 1–3, 2026).
- Conducted one day event 'EDGE OF SCIENCE' under Causmic Club, Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on February 27, 2026.
- Conducted one day 'Career Counselling Session for Senior Secondary Residential School for Meritorious Students, Ludhiana' under Department of Applied Sciences, Guru Nanak Dev Engineering College, Ludhiana on February 12, 2026.

Dr. Amarjot Kaur Randhawa

- Conducted workshop on "Setting of quality question paper and evaluation of answer sheets" on 06.01.2026 at GNDEC.
- Conducted FDP on UHV-I FDP from 08.01.2026 to 10.01.2026 at GNDEC, Ludhiana.

Dr. Jaspreet Singh

- Conducted three days FDP on UHV-I FDP from 08.01.2026 to 10.01.2026 at GNDEC, Ludhiana.

Faculty Achievements:

Pf. Karan Bhalla

- Certificate of Appreciation from **NPTEL as DISCIPLINE STAR 2026** for completing and successfully qualifying required weeks of Learning in different Chemistry Courses.
- Certificate of Appreciation from **NPTEL as BELIEVER 2026** for successfully qualifying the required conditions of learning in different courses.

- Elite and Silver Medal in Online NPTEL “Introduction to complex biological systems” Course.
- Elite category certification in Online NPTEL “Electrochemical Technology in Pollution Control” Course.
- Elite category certification in Online NPTEL “Cell Biology: Cellular organization, Division and processes” Course.
- Topper and Elite category certification in Online NPTEL “Environmental Science” Course.
- Best Paper Award at International Conference (Hybrid Mode) on “Advancing Knowledge from Multi disciplinary perspectives in Agricultural, Life Sciences, Engineering and Technology” organized by SIDVI Society for Research and Development held on 26th and 27th Jan 2026.
- Best Paper Award at One day International Conference (Hybrid Mode) on “Global Challenges and Scientific Solutions 2026” organized by SIDVI Society for Research and Development held on 28th Feb 2026.

Dr. Rajvir Kaur Sraw

- Coordinator, AICTE Training and Learning (ATAL) Academy Offline Faculty Development Programme approved for the academic year 2026–27.
- Coordinator, Indian Knowledge Systems (IKS) Grant, awarded by the Indian Knowledge Systems Division, Ministry of Education, Government of India
- Best Teacher Award 2026, conferred during the 70th Foundation Day Celebrations of GNDEC on April 8, 2026.
- Delivered an Expert Talk on "Human Values and Professional Ethics" on July 21, 2026, organized by the Department of Information Technology, GNDEC.
- Served as a Judge for the District Level Teacher Fest 2025–26 held at GNDEC on January 17, 2026. 4) Bronze medalist (Women faculty Relay race) during the 65th Annual Athletic Meet held at Guru Nanak Dev Engineering College, Ludhiana on February 19-20, 2026.

- Oral Presentation at the National Conference on Advances and Innovations in Physical Sciences organized by Sri Sai University, Palampur, held on March 23–24, 2026.

Dr. Amarjot Kaur Randhawa

- Sukhmandeep Kaur, Arashdeep Singh, Amarjot Kaur, Gurkirat Kaur, Antima Agarwal, Hanuman Bobade, and Gurinder Singh. "Gaseous Ozonation Modulates the Nutritional, Functional, Pasting, and Structural Properties of Whole Wheat Flour." *Food Biophysics* 21, no. 3 (2026): 84.

Dr. Jasmeet Kaur

- Published a research paper entitled **“Interfacial Charge Transport and Band Structure Modulation via Defect Engineering in Calcium-Doped g-C₃N₄ Nanorods for Enhanced Photocatalysis and Selective Wastewater Dye Degradation”** in *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, Volume 737, Part 2, Article No. 139786, published on May 20, 2026.