



# SUSTAINABLE DEVELOPMENT GOALS



## Sustainable Development Goals ANNUAL REPORT 2023



**L**OVELY  
**P**ROFESSIONAL  
**U**NIVERSITY

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# SDG 1 – No Poverty

**Introduction:** Lovely Professional University (LPU) is deeply committed to Sustainable Development Goal (SDG) 1 - No Poverty. Our efforts focus on addressing poverty through education, community outreach, and impactful service. From skill-based programs like the Gyandeeep Project and Farmer Technology Innovation to compassionate initiatives such as Joy of Giving and Flood Relief Camps, we work to uplift communities holistically. Additionally, our financial aid programs, including need-based scholarships and education loans, ensure that economic barriers do not hinder access to quality education. Guided by our mission to transform lives, we remain dedicated to creating lasting social change.

## Training Programme organized by the University:

"In alignment with the United Nations Sustainable Development Goal (SDG) 1, 'No Poverty,' Lovely Professional University (LPU) has demonstrated its commitment to poverty eradication through various initiatives, including the 'Training Programme organized by the University.' This program is designed to empower individuals with the practical skills necessary to thrive in the modern job market, which aligns closely with SDG 1's goal of reducing inequality and fostering economic growth.

**SCHOOL OF DESIGN (MULTIMEDIA AND ANIMATION)**

**PHOTOGRAPHY WORKSHOP**  
IN ASSOCIATION WITH FUJIFILM INDIA

DATE: 14TH SEPTEMBER 2022  
TIME: 11.00AM TO 4.30 PM  
VENUE: 29TH BLOCK, ROOM NO: 402  
LOVELY PROFESSIONAL UNIVERSITY  
PUNJAB INDIA

**ROHIT ADLAKHA**  
(FUJIFILM NORTH INDIA TECHNICAL HEAD)  
**FUJIFILM**  
Value from Innovation

**LIVE STREAM**

**FREE ENTRY**

**LOVELY PROFESSIONAL UNIVERSITY**  
Transforming Education Transforming India

**School of Civil Engineering**  
Organizes  
Guest Lecture on  
**Various Aspects of EPC Projects**

**About**  
School of Civil Engineering is going to conduct an online Guest lecture on "Various Aspects of EPC Projects". This guest lecture will make the students aware of various stages involved in engineering Procurement and Construction (EPC) Projects. Due to many various complexities involved in EPC projects, the Guest lecture intends to provide detailed information on various aspects and stages involved from construction till completion of the project. Therefore, the Guest lecture will focus on enhancing knowledge related to Engineering Procurement and Construction (EPC) Projects

**The main objectives of the event are:**

- To make the students aware of various types of Construction Projects
- To enhance the knowledge related to Engineering Procurement and construction (EPC) Projects.
- To familiarise students with various stages in EPC projects.
- To help students to understand the necessity of monitoring the Projects.

**Date:** 15 September 2023  
**Time:** 03:00 pm  
**Venue:** Myclass Platform

**Resource person:** Mr. Deep Narayan Pathak

**L**OVELY  
**P**ROFESSIONAL  
**U**NIVERSITY

**GUEST LECTURE  
ON**

**ROLE OF AGRICULTURE MECHANIZATION TO ENHANCE  
CROP PRODUCTION AND FARMERS PROFITABILITY**

**10/11/22**

**3-5 pm**

**SPEAKER: SURAJ KUMAR JIRWANKAR  
PRODUCT MANAGER, JOHN DEERE PVT. LTD.**

*Organised by:*  
*Department of Soil Science and Agricultural  
Chemistry, School of Agriculture*

*Dr. Ramesh Kumar Sadawarti*      *Dr. Nitin M. Changade*  
*Dean*                                      *Head of Department*  
*School of Agriculture*                *Deptt. of Soil Science*

*Convenor:*                              *Co-Convenor:*  
*Dr. Anvesha*                              *Dr. Vikas Sharma*  
*Assistant Professor*                      *Assistant Professor*



Some of the training program Organized by LPU

## Entrepreneurship Events

### Accelerated Incubation Program

The Accelerated Incubation Program at Lovely Professional University (LPU) is designed to provide an intensive, structured, and fast-paced support system for startups and early-stage businesses. The program aims to help participants achieve rapid growth and self-sustenance by offering a combination of mentorship, resources, and networking opportunities. Through this program, businesses will receive guidance from experienced entrepreneurs and gain access to specialized facilities that will fast-track their development.

**INVITING APPLICATIONS**  
**COHORT 1.0**  
1 Month (Starting 1st June'23 Onwards)  
**Accelerated Incubation Program**

- SEED Funding upto 1 Cr
- Structured Mentoring
- Global Network of 1000+ Investors
- Upto 50 Lakhs worth of Benefits

**Who Should Apply**  
Prototype stage  
Market fit Readiness  
Growth Stage

Last Date to Apply | 30th May 2023 | Scan to Register

Registration fee : 999/- per startup excluding food & stay

Email your query at [entrepreneurship.dsw@lpu.co.in](mailto:entrepreneurship.dsw@lpu.co.in)

**50 Seats Only**

**VENUE: LOVELY PROFESSIONAL UNIVERSITY**

COHORT 1.0

### START-A-THON

STARTaTHON, organized by the Startup, Innovation, and Entrepreneurship wing under the aegis of Student Welfare at Lovely Professional University, successfully provided a vibrant platform for participants to showcase their most innovative and original business ideas. The offline event brought together creative minds who presented unique business plans aimed at addressing real-world challenges.

Participants demonstrated their entrepreneurial skills and creative thinking, delivering compelling presentations and competing with one another to stand out with their innovative solutions.

The event created a dynamic environment where ideas were not only presented but also refined through feedback from industry experts. It fostered collaboration, networking, and knowledge sharing, allowing participants to enhance their business planning skills. STARTaTHON proved to be a significant opportunity for aspiring entrepreneurs to take their ideas to the next level, with the potential to develop them into successful ventures.



The poster for START-A-THON features a large blue ribbon graphic that curves across the page. At the top, logos for Student Entrepreneurship Cell, Enprendia, Institution's Innovation Council, and Lovely Professional University are displayed. The main text reads "Student E-cell LPU presents START-A-THON" in bold, with "START-A-" in blue and "THON" in orange. Below this, it says "Convert your idea into Reality" and includes a "Register now" button with a right-pointing arrow. A URL, <https://tinyurl.com/start-a-thon>, and a QR code are provided for registration. The event details are "Event on - 1st, 2nd April" and "Venue- 32 Block, Lpu". Social media handles for Instagram (@ecell.lpu) and LinkedIn (@e-cell lpu) are listed. A contact email, entrepreneurship.dsw@lpu.co.in, is provided for queries. The background includes an illustration of a person in a suit sitting at a desk with gears and upward-pointing arrows, symbolizing business and innovation.

## START-A-THON

## IECON

The Indian Entrepreneurship Conclave (IECon) at Lovely Professional University is a dynamic platform designed to inspire and support aspiring entrepreneurs, startups, and innovators. This event brings together participants from various industries to showcase their groundbreaking ideas and connect with mentors,

investors, and like-minded professionals. Through pitching competitions, keynote speeches, and interactive workshops, IECon provides a holistic environment for learning, networking, and business growth. Entrepreneurs get the opportunity to present their startups, gain valuable insights from experts, and compete for funding and mentorship.



Entrepreneurship Conclave at LPU

### **Startup Ecosystem Enablers Meet**

Lovely Professional University (LPU) recently organized the Startup Ecosystem Enablers Meet, focusing on driving entrepreneurial growth and innovation within the campus and across the Punjab region. This event aligned with the university's commitment to Sustainable Development Goal 1 (SDG 1) – No Poverty, by fostering entrepreneurship as a key strategy for poverty alleviation. Through the discussions, key stakeholders explored how startups and innovation can create economic

opportunities, generate employment, and uplift communities, particularly in underprivileged areas.



Empowering Entrepreneurship for Poverty Alleviation: LPU's Startup Ecosystem Enablers Meet drives innovation and opportunity, supporting SDG 1 – No Poverty

## Chepreneur

Chepreneur is a dynamic event hosted by Lovely Professional University (LPU) that aims to foster entrepreneurship within the hospitality industry. This gathering serves as a platform for aspiring chefs and hospitality professionals to explore various business opportunities, bridging the gap between culinary arts and entrepreneurial spirit. Participants have the chance to engage in expert-led sessions that delve into industry trends, business strategies, and innovative practices, while also benefiting from hands-on culinary workshops designed to refine their skills and creativity in the kitchen.





The primary objective of Chefprenneur is to inspire and equip participants with the essential tools needed to transform their culinary passion into successful ventures. By fostering a collaborative environment, the event encourages networking among like-minded individuals, enabling them to share ideas, experiences, and insights. Ultimately, Chefprenneur not only nurtures individual aspirations but also contributes to the growth and diversification of the hospitality sector, promoting entrepreneurship as a viable career path for culinary enthusiasts.

## Pitch fest



## Earn While Learn:

"In alignment with the United Nations Sustainable Development Goal 1, 'No Poverty,' Lovely Professional University (LPU) recognizes the significance of providing students with part-time job opportunities to equip them with essential skills and experiences. SDG 1 emphasizes the necessity of eliminating poverty in all its forms, and LPU believes that part-time jobs play a pivotal role in this journey.

The 'Earn While Learn' program at LPU is not just about earning money; it's about breaking down economic barriers and fostering economic well-being among

students. By offering part-time employment, LPU empowers students with the tools they need for financial independence and personal growth, aligning with the mission of SDG 1.

[Click here](#) for more information...

**Financial Aid – Need-Based Scholarship:** LPU has introduced a need-based financial aid program to tackle economic disparities in education. This initiative aims to provide support to students hailing from Economically Weaker Sections (EWS) and other special categories, including Single Girl Child, Single Mother, Students from Minorities, Transgender, and Non-Traditional Students. By offering financial assistance, LPU empowers these students to overcome financial hurdles and pursue higher education, ultimately enhancing their employability prospects. This initiative resonates with the essence of SDG 1 by breaking down economic barriers and facilitating access to quality higher education.

[Click here](#) for more information...

**LPU Study Grant:** Under the banner of the 'LPUNEST Study Grant,' deserving students receive financial support to pursue higher education at prestigious institutions other than Lovely Professional University. The program, now in its fourth edition, has already granted scholarships totaling over Rs. 6 crore to meritorious students. These grants empower students to access education at institutions like IITs, NITs, IIMs, NLUs, IHMs, NIDs, IITs (DoD/IDC), NIFTs, AIIMs, and Government Universities & Colleges (Central/State). Additionally, they have the choice to enroll in programs at LPU and access scholarships of up to Rs. 6.8 lakh. This initiative aligns perfectly with SDG 1 by fostering inclusive access to education and breaking down financial barriers for students seeking higher education.

[Click here](#) for more information...

**Education Loan Assistance:** LPU further facilitates accessibility to education by establishing a dedicated loan assistance cell. This cell assists students in obtaining educational loans from associated banks at the time of admission and throughout their academic journey. Education loans provide students with the necessary financial resources to fund their education, helping them pursue their academic aspirations. By supporting students in securing educational loans, LPU is contributing to SDG 1's objective of eliminating poverty in all its forms.

[Click here](#) for more information...

## Farmer Technology Innovation : Empowering Agriculture through Technology

This initiative empowers local farmers by enhancing agricultural productivity and economic sustainability, ultimately contributing to poverty reduction in the farming communities.



### Nurturing Tomorrow's Agriculture: LPU Empowering Local Farmers

In a region where agriculture is the backbone of many livelihoods, Lovely Professional University (LPU) takes on the role of a catalyst for positive change. LPU's commitment to supporting local farmers and fostering innovation in agriculture was recently demonstrated through an enlightening awareness program known as the "Farmer Technology Innovation Incubation Activity." This initiative is designed to bridge the gap between traditional agricultural practices and modern technology, ensuring that farmers can harness the latest advancements to improve their agricultural productivity and sustainability.

[Click here](#) for more information...

Through this program, LPU brought innovation directly to the doorstep of local farmers, introducing them to cutting-edge agricultural technologies, smart farming techniques, and innovative solutions that can significantly enhance their agricultural practices. The program served as a platform for sharing knowledge on crop management, pest control, efficient resource utilization, and sustainable farming practices. By doing so, LPU contributes to the broader goal of enhancing the agricultural sector's productivity and sustainability.

## **DISHA - Career Counselling & Development: Guiding the Pathways to Success**

DISHA empowers individuals within the education sector by providing career guidance, ultimately aiding in poverty alleviation through informed career choices and educational success. The word "Disha," originating from the Sanskrit language and translating to "Direction," aptly reflects the essence of LPU's social initiative, "DISHA - Career Counselling & Development." This program serves as a beacon of guidance and support for individuals involved in the field of education, including students, educators, administrators, and support staff across various educational institutions, encompassing schools, colleges, NGOs, and educational organizations nationwide.



### Some Glimpses of the Training Program under DISHA

DISHA is a collaborative effort that brings together knowledgeable counsellors and experts with the primary objective of providing essential assistance and guidance to students, teachers, and educational institutions. It assists them in navigating the constantly evolving landscape of the education sector, adapting to its ever-changing demands.

[Click here](#) for more information...

This initiative strives to provide clarity to students, helping them find the right path to achieve their career aspirations. Simultaneously, it works to elevate the skills and capabilities of mentors, teachers, and parents. In an age marked by fierce competition in every facet of life, DISHA underscores the necessity for sound guidance in making pivotal decisions concerning one's career and life.

## **Bakery Workshop**

Lovely Professional University (LPU) conducted a bakery workshop aimed at empowering individuals from underserved communities as part of its commitment to SDG 1 – No Poverty. The workshop provided participants with hands-on training in baking skills, offering them the opportunity to learn a marketable trade and enhance their livelihood prospects. By equipping attendees with practical skills, the initiative



sought to uplift underprivileged individuals and promote economic self-sufficiency, aligning with LPU's efforts to reduce poverty and support sustainable community development.

## **Computer Literacy Program**

Lovely Professional University has launched a "Computer Literacy Program" to empower children and residents of nearby slum areas with essential computer knowledge. Volunteers from the university regularly visit these communities, teaching basic computer skills to help



bridge the digital divide. This initiative aims to equip underprivileged individuals with valuable technological skills, contributing to a more educated and digitally literate generation. Sessions held in the Rama Mandi slum area have been met with enthusiastic participation, fostering learning and growth.



# SDG 2 – ZERO HUNGER

**Introduction:** To combat hunger effectively, a comprehensive approach is necessary, which includes measures such as increasing agricultural productivity, improving access to nutritious food, enhancing social safety nets, promoting sustainable farming practices and empowering vulnerable communities which LPU is contributing by supporting research and innovation in agriculture, organizing awareness campaigns and implementing programs to enhance food security and nutrition.

## **RESEARCH ON HUNGER**

The School of Agriculture at Lovely Professional University made significant contributions to Sustainable Development Goal 2 (Zero Hunger) through its advanced research and educational initiatives. A key achievement was their soil fertility mapping, which identified essential nutrient deficiencies, enabling improved soil management and enhanced crop productivity. The school was also the first private university in India to receive ICAR accreditation, reflecting the high quality of its agricultural programs and commitment to excellence in education. Lovely Professional University (LPU) has made significant strides in advancing sustainable agriculture and food security, as evidenced by its impressive rankings in the 2023 Scimago Institutions Rankings.

## **Access to Food Security Knowledge**

Lovely Professional University has taken significant steps to provide access to food security knowledge, sustainable agriculture, and aquaculture practices for local farmers and food producers. The university offers workshops, seminars, and training programs designed to enhance the skills and knowledge of local agricultural communities, ensuring they are equipped with the latest techniques and technologies in sustainable food production. These initiatives cover a range of topics, including innovative farming practices, resource management, and sustainable aquaculture methods. By offering practical, hands-on training, the university enables local farmers to improve productivity while minimizing environmental impact.

**IPR on SDG 2:** The patents highlight the university's commitment to sustainability and agricultural innovation. One notable patent is a novel bio-waste fertilizer designed for the growth of ornamental plants in wetland systems, which promotes the use of sustainable and eco-friendly practices.

## **INNOVATION & ENTREPRENEURSHIP**

**Aquaponics** is a revolutionary agricultural technology that combines hydroponics, aquaponics, and aeroponics to grow plants in a soil-free environment. Nutrient-rich water solutions and advanced misting techniques provide essential nutrients directly to plant roots. This sustainable approach maximizes crop yields, conserves water, and minimizes environmental impact, making it ideal for urban farming and areas with limited arable land. **Hydroponics** The project involves growing various crops using mineral nutrient solutions. This innovative approach allows learners to master soil-less cultivation, understand plant nutrition, and the importance of balanced mineral intake. **Flying Farmer** LPU students have created a drone-guided technology that facilitates soil nutrient status and water stress analysis, streamlining the farming process. This innovative approach enhances crop productivity and sustainability, marking a significant advancement in agricultural innovation.



Growing plants without soil, using mineral nutrients in water

## **CAMPUS FOOD WASTE**

LPU combats food wastage by implementing a comprehensive system including meal subscriptions, menu planning, timed food service, awareness campaigns, and waste tracking. This initiative aligns with UN SDG 12, promoting sustainable consumption and production patterns.

### **Initiatives Taken to Address Food Wastage:**

- LPU implements a meal subscription system to optimize food requirements, enabling efficient planning and production by food service contractors.
- Campus implements yearly menu plans to ensure nutritional balance and efficient resource management.
- The food is served at a predefined time as per the time table. This helps the students to plan their meal timings to minimize the food wastage.
- LPU tracks food waste daily by monitoring the quantity of leftover food collected in 200-liter bins.
- The bins of leftover food are transported to nearby Piggery and Cowsheds to feed the animals.

## **STORAGE OF FOOD TO PREVENT FOOD WASTAGE**

To further minimize food wastage, LPU has implemented strict storage protocols for fruits and vegetables. Proper storage techniques ensure optimal freshness, taste, and longevity.

•The Storage of fruits and vegetables for maximum freshness is done properly, so that they taste better and last longer. It is ensured that each Food contractor has utilized the storage capacity to store, freeze, preserve, use surplus fruits and vegetables to avoid wastage.

•A competent internal agency is authorized to carry out frequent inspections to ensure the proper execution of guidelines.

## **ADDRESSING HUNGER: DIVERSE FOOD OPTIONS**

Lovely Professional University addressed hunger by ensuring that students and staff had access to a variety of food options through its extensive network of food courts across campus.

**Student Food Insecurity and Hunger:** University ensures that a wide variety of affordable, healthy, and culturally diverse meal options are available on campus. The programme emphasizes inclusivity by catering to different dietary preferences



and restrictions, ensuring that all students can access nutritious food that supports their academic and personal well-being.

**Students Hunger Interventions, Lpu** prevents and addresses hunger on campus. These initiatives include partnerships with local food vendors and businesses, ensuring students have access to affordable, nutritious meals throughout the day. LPU also operates on-campus grocery stores, offering fresh produce and essential items at discounted rates to make it easier for students to meet their nutritional needs.



Students collecting their meals from the canteen counter

### **Sustainable Food Choices on Campus:**

LPU offers a wide range of sustainable, vegetarian, and vegan food choices sourced from environmentally responsible suppliers. The university prioritizes local sourcing, minimal chemical usage, and ethical farming practices to contribute to a sustainable future. **Healthy and Affordable Food Choices,** LPU offers healthy and affordable food choices across campus, with canteens and stalls near every academic and hostel building. With a range of vegetarian and vegan options, LPU ensures accessibility for various dietary preferences. Meals are priced under 1 dollar to make nutritious food available to all, supporting healthy eating habits for students, staff, and visitors alike.

## Staff Hunger Interventions:

To support staff well-being, Lovely Professional University offers affordable meals on campus and provides a food pantry for staff in need. Complimentary tea and snacks are available during work hours, with nourishing meals provided for overnight shifts. Fresh fruits and honey from the Agriculture Department encourage healthy eating, and additional food is offered during events and celebrations, ensuring a welcoming and supportive environment.



Canteens on campus have a seating capacity of more than 100 people, providing ample space for both staff and students to enjoy their meals comfortably

## Proportion of Graduates in Agriculture and Aquaculture:

Graduating over 1,600 students in agriculture and aquaculture with a focus on sustainability reflects a university's dedication to food security and ecological balance, preparing students to lead in sustainable practices.

## National Hunger:

National hunger impacts millions, posing a barrier to sustainable development. This metric gauges a university's role in combating hunger, supporting UN SDG Targets 2.3, 2.4, and 2.5, and advancing food security and equity. University prioritized **sustainable food purchases** by sourcing from local, eco-friendly suppliers. Clear criteria focus on environmentally sustainable products, supporting local economies. These initiatives are transparently shared through the university's website and sustainability reports to promote accountability and campus-wide participation. LPU organized **free workshops, field days, and networking events for local farmers**, connecting them with industry experts and faculty. These events offer valuable resources to support sustainable practices and improve food production. The outcomes are shared publicly, demonstrating LPU's commitment to transparency and strengthening agricultural resilience in the region. University supports local farmers and food producers by providing free access to advanced facilities, including laboratories, technology, and plant stocks. This initiative enables research and experimentation to improve farming techniques, promoting collaboration and the implementation of sustainable practices.

Farmers learn about sustainable agriculture at LPU's biochar workshop.



## ACADEMIC INITIATIVES

The university's Rural Agriculture Work Experience program allows students to share knowledge of sustainable farming with local farmers and raise awareness on agricultural practices. Courses like "Production Technology for Vegetables and Spices" and "Production Technology for Ornamental Crops" contribute to this initiative. Additionally, Experience Learning Programs provide farmers with exposure to advanced farming techniques, such as "Production of Quality Planting Material of Forest Species."

## EVENTS & ACTIVITIES

### Feeding Bellies – October 14, 2023:

LPU's NSS Unit Prayas, in collaboration with Unit Samarthaya, launched the 'Feeding Bellies' initiative, providing meals and essential supplies to underprivileged communities. The initiative addressed hunger while raising awareness about food security and community support.



LPU's Student and NSS Members Serving Food To Poverty-stricken

**Farmer's Awareness Camp:** Farmer's awareness camp on rice straw burning is crucial for SDG 2: Zero Hunger. By promoting sustainable agricultural practices and reducing air pollution, it contributes to healthy ecosystems, food security, and climate resilience. This initiative was successfully implemented at LPU, School of Agriculture, Block 57.



Participants at farmers' education event

### **Workshop on Dehydrated Fruit and Vegetable:**

LPU's Food Technology and Nutrition department hosted a workshop on dehydrated food processing, led by Dr. Sonia Morya and Dr. Ravindra Kumar Tiwari. The 28 participants learned skills in food preservation, equipment handling, and quality control, generating Rs 37,500 in revenue.



Skill Training of Rural Youth Program on Dehydrated Fruits and Vegetable Processing



# SDG 3 – GOOD HEALTH AND WELL-BEING

**Introduction:** Lovely Professional University (LPU) is deeply committed to advancing the health and well-being of its community and beyond, aligning its efforts with Sustainable Development Goal (SDG) 3. As a responsible institution, LPU recognizes the pivotal role it plays in nurturing a healthy society and has undertaken a comprehensive approach to address various dimensions of well-being.

Through strategic collaborations with local, national, and international health institutions, LPU has been instrumental in improving health outcomes. The university's commitment to community engagement is evident in its extensive outreach programs and projects that cater to the needs of the local population. By sharing its world-class sports facilities with schools and the public, LPU promotes a healthy lifestyle and physical well-being.

## **ACADEMIC INITIATIVES**

LPU offers a wide range of undergraduate programs in fields such as pharmacy, physiotherapy, medical laboratory sciences, food technology, nutrition and dietetics, and physical education. Building upon this foundation, the university provides master's degrees in similar areas, as well as clinical psychology, embryology, and hospital and healthcare management. These programs are designed to contribute to the achievement of the Sustainable Development Goals related to health and well-being. To ensure practical application of knowledge, students participate in training and internships at multi-specialty hospitals. The Faculty of Applied Medical Sciences is dedicated to producing graduates who are well-versed in scientific principles, research-oriented, patient-focused, and committed to serving both individual and community healthcare needs.

## **Programmes related to SDG 3: Good Health and Well Being**

LPU has a robust framework aligned with the **Sustainable Development Goals (SDGs)**, particularly focusing on SDG 3: Good Health and Well-being. This

framework is built on diversity and high-quality offerings across various academic programs. LPU integrates sustainability and interdisciplinary approaches throughout its curriculum. The university offers several programs aimed at achieving better health and well-being, with students regularly sent to multi-specialty hospitals for training and internships, ensuring practical exposure and hands-on experience in healthcare settings.

**Undergraduate level:** At the undergraduate level, LPU offers a range of programs that contribute to health and well-being, including Bachelor of Pharmacy, Bachelor of Pharmacy (Ayurveda), Bachelor of Physiotherapy, Bachelor of Science in Health and Physical Education, Bachelor of Science in Medical Laboratory Technology, and Bachelor of Science in Nutrition and Dietetics.

**Postgraduate level:** LPU offers several health-focused programs, including Master of Arts in Psychology, Master of Pharmacy, Master of Pharmacy (Ayurveda), Master of Physiotherapy, Master of Science in Clinical Biochemistry, Master of Science in Clinical Microbiology, Master of Science in Medical Laboratory Technology, and Master of Science in Nutrition and Dietetics.

**Doctoral level:** Ph.D. in Ayurvedic Pharmacy, Nutrition & Dietetics, Pharmaceutical Chemistry, Pharmaceutical Sciences, Pharmaceutics, Physiotherapy, Psychology, Medical Laboratory Science and in Ayurvedic Pharmaceutical Sciences. To view all the programmes offered by LPU, click on the links given below:

For the programs offered after 12th: [Click here](#)

For the programs being offered after graduation: [Click here](#)

## RESEARCH INITIATIVES

### [Research project and Government funding](#)

LPU is working on various projects focusing SDG 3 as mentioned in the list given below. These projects are funded by reputed govt. agencies.

To view research projects: [Click here](#)

Sr. No.	Title of the project	Name of the Govt. funding agency
1	Single cell RNA seq analysis and multiomics systems biology approaches to unravel role of metabolism and its associated signaling pathways in cell fate determination of yeast	Science and Engineering Research Board (SERB)
2	Developing novel cellulolytic cocktails through genetically engineered thermophilic fungal strain/s for efficient utilization of lignocellulosic biomass for 2G Ethanol production	Science and Engineering Research Board (SERB)
3	In-Silico screening-based pharmacophore modelling and in-vitro evaluation of small molecules for SARS-COV-19 (variants) RBD-HACE2 interaction inhibition	Science and Engineering Research Board (SERB)
4	National Campaign on Amrita for Life (Tinospora Cordifolia)	National Medicinal Plants Board (NMPB), Ministry of Ayush, Government of India
5	Preparation of 1 district and 1 block level people's biodiversity register	Punjab Biodiversity Board, Punjab State Technology Council for Science
6	Development of SOPs and standardization of different preparations techniques of Netra Patapaka formulations for Ophthalmic use	Central Council for research in Ayurvedic Sciences, Ministry of Ayush, Government of India

### Research Publications

Lovely Professional University (LPU) is deeply committed to addressing critical social issues related to health and well-being through its research-driven initiatives. Faculty members, along with research scholars, are actively engaged in exploring various health challenges, including cancer, diabetes, HIV infection, anti-



obesity treatments, and heart health. In the area of diabetes, LPU scholars are working to manage the complex metabolic disturbances associated with the disease, aiming to mitigate its effects on the human body. Their research extends to contributions made during the COVID-19 pandemic, including advancements in diabetes risk prediction using advanced machine learning techniques. Following are some titles of the research articles published in the reputed journals:

1. Aasarey, Ram, Kajal Yadav, Brijendra Kumar Kashyap, Sarit Prabha, Pramod Kumar, Anil Kumar, Janne Ruokolainen, and Kavindra Kumar Kesari. "Role of immunological cells in hepatocellular carcinoma disease and associated pathways." ACS Pharmacology & Translational Science 6, no. 12 (2023): 1801-1816.
2. Mensah, George A., Valentin Fuster, Christopher JL Murray, Gregory A. Roth, and Global Burden of Cardiovascular Diseases and Risks Collaborators. "Global burden of cardiovascular diseases and risks, 1990-2022." Journal of the American College of Cardiology 82, no. 25 (2023): 2350-2473.
3. Mahto, Rajul, et al. "A novel and innovative cancer classification framework through a consecutive utilization of hybrid feature selection." BMC bioinformatics 24.1 (2023): 479.
4. Yadav, D. P., et al. "Morphological diagnosis of hematologic malignancy using feature fusion-based deep convolutional neural network." Scientific Reports 13.1 (2023): 16988.
5. Low, L. E., Kong, C. K., Yap, W. H., Siva, S. P., Gan, S. H., Siew, W. S., ... & Goh, B. H. (2023). Hydroxychloroquine: Key therapeutic advances and emerging nanotechnological landscape for cancer mitigation. Chemico-Biological Interactions, 110750.
6. Conferences

<b>Snr.</b>	<b>Name of conference</b>	<b>Start date</b>	<b>End date</b>
2	International conference on recent advances in health sciences (ICRAHS – 2023)	14-apr-23	15-apr-23
3	Holistic health & well-being: Issues, challenges and management (in association with Indian academy of health psychology)-ICHHW	02-jun-23	03-jun-23

4	International conference on pharmaceutical Chemistry 2023	15-sep-23	16-sep-23
5	International conference on good health and well being through physical education (ICGHWP) and sports	30-sep-23	30-sep-23
7	5th international conference on intelligent circuits and systems (ICICS 2023) theme 1: SDG3 - good health and well-being	12-oct-23	13-oct-23
9	3rd international conference of pharmacy (icp-2022)	09-nov-22	10-nov-22
11	International conference on feminine hygiene management- beyond taboo (icfhm-2022)	25-nov-22	26-nov-22
12	International conference on clean water, good health, sustainable cities & communities (CWGHSCC)	2023-10-18	2023-10-19

7. Lovely Professional University is committed to advancing SDG 3: Good Health and Well-being. As part of this commitment, LPU annually hosts a series of conferences dedicated to addressing critical health challenges. These events serve as platforms for experts, researchers, and practitioners to share knowledge, discuss innovative solutions, and collaborate on improving health outcomes. The following section provides an overview of these conferences.

### **HEALTH & WELL BEING FRAMEWORK**

The health and wellness systems have been established to ensure accessible and equitable healthcare services for students and employees at LPU, as well as for individuals in the surrounding communities. This framework recognizes that wellness encompasses physical, psychological, and social well-being. Key elements of this framework include outreach initiatives, health insurance, ongoing awareness campaigns, regular health check-up camps, and collaborations with stakeholders at local, national, and international levels.

### **UNI- HEALTH CENTRE**

Lovely Professional University (LPU) is committed to the health and well-being of its students, staff, faculty, and the surrounding community. The university operates a 24/7 Uni-Health Centre, fully staffed by specialized medical professionals who are

trained to handle a wide range of medical situations, from minor ailments to complex health issues. The centre is equipped with modern facilities and has a fleet of ambulances on standby for both on-campus and off-campus emergencies. To promote preventive healthcare and support emotional well-being, LPU provides **free consultations** and organizes regular health and counselling sessions. These sessions are conducted by both internal and external experts, ensuring comprehensive care. Additionally, LPU frequently arranges comprehensive check-up camps, both on campus and in collaboration with local hospitals, benefiting not only the university community but also the public at large. The **24/7 helpline number** (given on website) and **free ambulance services** offers immediate access to healthcare support, providing guidance and assistance at any hour. It ensures that individuals can receive prompt advice and care for their health concerns whenever needed. Uni-Health Centre offers many OPD facilities for the healthcare of its students and employees such as General Medicine, General Surgery, Gynae Consultation, Eye Consultation, Psychological Consultation, Dental Consultation and Skin Consultation. To view various facilities provided in the Uni-health centre [Click here](#).

**Ambulance facility at Uni-Health**



**Male ward at Uni-Health**



**Eye OPD**



**ECG facility**





Sister BK Shivani inaugurated Meditation Centre at LPU

Brahma Kumari Shivani (Sister BK Shivani) visited Lovely Professional University (LPU), where she inaugurated a 'Meditation Centre' at LPU for the Department of Counseling & Happiness of the university. The center is to guide many thousands of students and staff members at LPU Campus. On this occasion, she was accompanied by Chancellor of the university Dr Ashok Kumar Mittal and Pro Chancellor Mrs. Rashmi Mittal, who also bestowed a memento of recognition to her. [Click here](#) for more details.



## **SEXUAL AND REPRODUCTIVE HEALTH CARE SERVICES FOR STUDENTS AND STAFF AT LPU**

Lovely Professional University (LPU) is committed to the holistic well-being of its students, faculty, and staff, which includes offering comprehensive healthcare services, including access to specialized medical professionals. This includes a **gynecologist consultation** for sexual and reproductive health services, ensuring that students, staff, and the community have access to professional care related to sexual health, reproductive issues, and overall well-being. To view various facilities provided in the Uni-health center [Click here](#).



Website snapshot of OPD facilities at Uni-Health Centre

The university's Uni-Health Centre collaborates with certified medical professionals and external experts to offer a range of sexual and reproductive health services. This includes access to consultations regarding sexual health concerns, contraception advice, family planning, menstrual hygiene, and safe sexual practices. LPU also conducts regular health awareness sessions focusing on **reproductive health, sexually transmitted infections (STIs), and preventive care. Free sanitary pad distribution** is part of the initiative to promote menstrual health among female students through programs like **"NARI - Her Right, Her Pride."**

### **Sexual Awareness and Education**

LPU actively promotes sexual health awareness through various programs and awareness camps. These initiatives focus on educating students and the community about sexual health, personal hygiene, and safe practices. For instance,

under initiatives like "NARI - Her Right, Her Pride," the university emphasizes menstrual hygiene and sexual health education, especially for girls. [Click here](#) for more details

With these comprehensive services, LPU strives to create a safe and supportive environment, encouraging students and staff to prioritize their sexual and reproductive health.



### **SHARING OF SPORTS FACILITIES WITH THE LOCAL COMMUNITY, FOR INSTANCE WITH LOCAL SCHOOLS OR WITH THE GENERAL PUBLIC**

Lovely Professional University is dedicated to promoting the holistic development of its students, emphasizing both physical and mental strength. Equipped with state-of-the-art facilities, including expansive outdoor spaces and top-tier equipment, LPU provides a conducive environment for athletic excellence. Under the guidance of expert coaches, students have consistently achieved remarkable success in a wide range of sports, setting new standards of achievement.

LPU boasts a wide array of indoor and outdoor sports facilities. From state-of-the-art indoor stadiums to sprawling outdoor fields, the university offers an exceptional sporting experience. These facilities cater to a diverse range of sports and fitness interests, promoting a healthy and active student life.





***VISTAAR 2023 - 6th spinal cord injury rehabilitation conference & wheelchair games, 30<sup>th</sup> March, 2023 to 31<sup>st</sup> March, 2023***

VISTAAR 2023, the 6th Spinal Cord Injury Rehabilitation Conference & Wheelchair Games, marked a significant collaboration between LPU - NSS under the aegis of Division of Youth Affairs, Division of Student Welfare, LPU and the Spinal Cord Injury Association of India (SCIA) was organized at Shanti Devi Mittal Auditorium on the campus of Lovely Professional University (LPU) from 30<sup>th</sup> March, 2023 to 31<sup>st</sup> March, 2023 in which participants from all over India have also participated. [Click here](#) for more information.





Participants with Shri Bhagwant Mann, Chief Minister of Punjab & Member of Parliament, Rajya Sabha & Honorable Chancellor, LPU, Dr. Ashok Mittal during the Inauguration Ceremony of VISTAAR-2023



# SDG 4 –QUALITY EDUCATION

**Introduction:** LPU is dedicated to establishing itself as a prominent center for superior education, consistently delivering high-quality academic experiences. LPU’s exceptional academic performance is a direct result of its commitment to excellence in education, driven by diligent efforts to enhance curriculum quality through the active involvement of stakeholders, innovative pedagogical approaches, comprehensive evaluation methods, and experiential learning. The university emphasizes student-centered and participatory learning, skill enhancement, and course enrichment. The university has a rigorous review process in place for maintaining the highest standards of educational quality, supported by inspections and feedback mechanisms. LPU's adaptive curriculum, coupled with a focus on quality in pedagogy, evaluation, and personalized learning, ensures that students receive a well-rounded education. The excellence of LPU’s academic experience is reflected in its commitment to the availability of extensive educational resources, and its robust outreach activities, including events for the general public. LPU also enriches the quality of education through Outcome-Based Education (OBE), Open Educational Resources (OER), Continuing Professional Education (CPE), and Executive Development Programs etc. which further enhance the educational landscape.

## **Adaptive Curriculum**

The backbone of any Higher Education Institution is its curriculum which gives strength to the institutions for addressing the international and national level concerns. At the international level such as UNO’s Sustainable Goals, Rights for persons with disabilities, etc., similarly at the national level such as Outcome Based Education (OBE) model, National Education policy, various accreditation, ranking and regulatory body guidelines, etc. A few of the intelligent efforts made by LPU are discussed below-

a) **Curriculum & Pedagogy** policy of LPU is rooted in its guiding philosophy, 'Transforming Education Transforming India' and in its mission of providing world-class quality education. The university offers an outcome-based curriculum as per UGC's choice-based/flexible credit system which is implemented in 98.6% of programs.

b) **CDR-Curriculum Development & Review:** The curriculum and syllabi for all programs are reviewed annually through a dedicated activity called—Curriculum Development & Review.

This process takes place in a workshop format, where faculty members convene at a central location for about a month to thoroughly assess and update the schemes and syllabi, incorporating feedback from stakeholders. Additionally, this workshop is conducted twice a year, before the start of each term, to ensure the curriculum remains up-to-date and aligned with the current needs of both industry and academia.

c) **Pathways:** LPU empowers students to choose their own career pathways based on individual interests, offering flexibility in selecting elective subjects and designing personalized learning experiences. Career pathways are facilitated through an online interface along with counseling sessions to guide students in their choices. The curriculum aligns teaching and evaluation methods with specific outcomes across various pathways, including preparation for **corporate jobs** through essential skills training, **government job** entrance exams like UPSC, and **higher studies** entrance tests such as CAT and GATE. Additionally, specialized courses support **research** opportunities and **entrepreneurship** development through workshops and interactions with industry experts. Furthermore, LPU collaborates with over 150 global institutions to assist students in pursuing **higher studies abroad**.

d) **Technology-Driven Learning:** LPU integrates technology deeply into its curriculum, creating a tech-enhanced learning environment. The university uses online platform models, BYOD, etc. to extend the learning experience beyond traditional classrooms, offering global exposure and a more interactive approach to education. This tech-driven learning model challenges conventional teaching methods and encourages a more immersive and dynamic experience.

e) **Value-Based Education:** LPU's curriculum emphasizes holistic development by incorporating courses on ethics, sustainability, and social responsibility. Students engage in community projects, such as campaigns on adult literacy, environmental conservation, and food waste reduction. Participating in socially relevant activities, such as street theatre on issues like female foeticide and child

labour, helps students develop into socially responsible citizens who contribute positively to society.

- f) **Blended learning** is enhanced by incorporating Massive Open Online Courses (MOOCs) from recognized national and international platforms, such as SWAYAM, NPTEL, Coursera, or edX, into the curriculum. These courses are given academic credit, allowing students to benefit from diverse, high-quality learning resources beyond traditional classroom instruction. This approach broadens learning opportunities, promotes flexibility, and ensures that students gain exposure to global knowledge and industry-relevant skills.
- g) **International orientation** of students is enhanced through courses with a global perspective, foreign language electives, semester exchange programs, and international exposure opportunities such as training and internships. Additionally, integrating international elements into the delivery of most courses further strengthens this global focus. Some of such courses include Introduction to International Business, Understanding Globalization, Global Climate Change, Globalisation and Society, International Education Orientation, Global Human Resource Management, etc.
- h) **Courses in cutting-edge fields** such as Artificial Intelligence, Mechatronics, Cloud Computing, Business Analytics, Digital Marketing, Precision Agriculture, Disaster Management, Green Economy, and Nutraceuticals have been introduced. For example,
- i) **Program Orientation Courses** have been added to the curriculum to provide students with a comprehensive overview of their program, including roles in industry, government, and entrepreneurship. These courses are designed to help students gain a clear understanding of their program's structure, academic requirements, and available specialization options.
- j) **Skill enhancement:** The LPU curriculum lets you master your skills. Extensive laboratory work, workshop courses, industry certifications, trainings, live projects and industry internships provide rigorous hands-on exposure to real life. Courses such as Power BI and Tableau: From Beginners to Professionals, Master 26 : For Acing All Corporate & Government Interviews, Beginner's Mind: Learn the Art of Speaking, Building Wealth: A Comprehensive Course on Stock Market Investing & Trading, Mind To Mouth: How to Give Shape to Your Ideas, Quant for RRB JE, General Intelligence for All Competitive Exams: To Boost up Your Scores, Hit the Interview Out of the Park etc. provide targeted, industry-relevant skills to support career growth.

- k) **Inclusion of Stakeholder Participation and Feedback:** LPU actively involves stakeholders—students, alumni, faculty, and industry professionals—in shaping its curriculum. Regular feedback is used to evaluate the effectiveness of the curriculum and ensure its continued relevance to current educational and professional needs.
- l) **Specializations and Interdisciplinary Minors:** The curriculum offers Interdisciplinary projects, allowing students to tailor their degree programs to their career goals. Interdisciplinary minors further enhance the learning experience by enabling students to explore unrelated areas of intellectual interest, promoting a multidisciplinary approach that is crucial for the future.
- m) **Information and Communication Technology (ICT):** LPU incorporates ICT skills development into its curriculum, ensuring that all students, regardless of their program, achieve proficiency in digital literacy. The level of IT competency required varies by program, ranging from basic computing to advanced skills, preparing students for the digital demands of the modern workplace.

### **Experiential Learning**

Pedagogy at LPU is enhanced through experiential learning which includes workshops, labs, tutorials, projects, studio-based courses and health camps, etc. Additional enrichment activities include field visits, live projects, design work, training in industry-relevant projects, and experiential learning in practicals, etc. Courses like Fly Against Gravity, Intelligent Devices and Tinkering Lab, and Visual Design Project enable students to create projects related to their disciplines. To further enhance experiential learning, LPU introduced the "Experience It Yourself" (EIY) framework, an innovative approach to education and personal growth. It emphasizes real-world activities to foster learning and fresh perspectives. For example, production processes for everyday items like bricks, bicycle chains, and pavers are documented and broken into short video clips accessible to students remotely. Detailed videos on automotive chains, combination spanners, bolts, and more are available on YouTube.

[Click here](#) for more information...

### **Framework for Advance and Slow Learners**

The framework for both advanced and slow learners aim to create an inclusive learning environment that accommodates diverse learning needs. It typically involves personalized learning plans, flexible teaching methods, and a range of

resources to cater to different paces and styles of learning. The goal is to challenge and support each student appropriately, fostering a conducive atmosphere for growth and development, regardless of their learning speed.

### **Contemporary, Well-Equipped, and State of Art Laboratories**

Laboratories offer students an ideal environment for conducting experiments and honing their problem-solving and critical-thinking abilities. The theoretical knowledge acquired in the classroom is put to the test in the labs, potentially paving the way for ground breaking research and innovations. To reinforce the concepts introduced in lectures, it's essential for students to have the chance to explore and validate ideas on their own. Recognizing the significance of labs in achieving academic excellence, Lovely Professional University is proud of its state-of-the-art facilities, which encourage a hands-on learning approach.

[Click here](#) for information

In addition to the points mentioned above, LPU has consistently been a leader in research. To support this, the university has established numerous partnerships and collaborations with leading companies across the country to enhance research initiatives. This is further enabled by the presence of industry-sponsored and collaborative labs at LPU, providing valuable resources for faculty, research scholars, and students.

[Click here](#) for more information

### **Innovation Studio**

Innovation Studio is the creative and collaborative center at Lovely Professional University, where students and faculty come together to brainstorm, prototype, and refine projects that address challenges, drive change, and engage with societal issues. It provides a shared space for students to collaborate and bring their ideas to life. Spanning approximately 50,000 sq. ft., the studio includes nine different types of labs, ranging from ideation to assembly and fabrication. Serving as a central hub for interdisciplinary collaboration, the Innovation Studio hosts various workshops and webinars each year to enhance students' knowledge. Additionally, it encourages students to participate in national and international competitions, where they have made a notable impact and achieved success.



Innovation Studio

### **Open Access to e-Resources**

### **Open access to E-books and Self Learning Materials (SLMs)**

LPU is committed to foster a pervasive learning atmosphere, and towards the realization of this goal, the university has been providing high-quality and open access to multilingual educational resources including E-books and Self Learning Materials (slms). To motivate widespread learning, the e-resources can be accessed globally by students, teachers, professionals or anyone who wishes to acquire knowledge. These valuable resources are beneficial and easily downloadable, enhancing the learning journey for knowledge enthusiasts. For accessing this plethora of resources, please visit:

**<https://www.lpude.in/about-us/availability-of-online-study-material.php>**

### **Open access to E-journals and Intellectual work**

LPU's libraries are state-of-the-art knowledge hubs, offering a vast collection of academic resources, including books, journals, e-resources, and research databases. LPU offers ICT based resources to its users, such as e-books, e-journals, databases that includes IEEE, Springer, EBSCO, Capitaline, SCC Online, DELNET, JSTOR, Shodhganga, Shodhgangotri, INFLIBNET, NDL etc. The university generously provides open access to a wide range of study materials and educational resources through its digital library, e-journals, e-books and more. For more details on the available resources, please visit:

[Click here](#) for more information...

JSPUI enduring value to Lovely Professional University by providing service to Faculty Members, Students, and Research Scholar to share their intellectual work on a global platform through their thesis and dissertations. For further details, please visit:

[Click here](#) for more information...

## EVENTS FOR GENERAL PUBLIC

Lovely Professional University emphasizes the application of professional knowledge in society by organizing numerous events and workshops for the public. These initiatives not only enhance personal development but also raise awareness of societal needs. Continuous learning is essential, regardless of one's educational or professional stage. Different fields require various skills, tools, techniques, and languages that can provide a competitive edge. In the 2022-2023 academic year, the university hosted several activities for the public, including Biochar- An alternative and sustainable method for stubble burning, Trichoderma & Jeevamrut Preparation, Parthenium Awareness week etc. The university's commitment extends beyond mere certification, welcoming professionals, students, and the broader community.



Lovely Professional University and School of Agriculture conducted "Two-day Seminar cum workshop on Biochar- An alternative and sustainable method for



stubble burning' for farmers of the nearby villages on 02-03-2023 and 04-03-2023. This program is conducted with the support of an ongoing research project with Japan (Aakash Project, RIHN Japan). In this program, more than 40 farmers from different villages participated and got awareness about making biochar from different crop residues. Dr. Chandra Mohan emphasized the importance of biochar application in different crops and briefed about different biochar-making methods. They also guided farmers about the sustainable approaches for crop production also talked about the potential of biochar-based amendments in biofertilizer production.

One-day camp on Trichoderma & Jeevamrut Preparation organized by the Department of Plant Pathology, [School of Agriculture Lovely Professional University](#) & Flying Trade India Private Limited at Anaj Mandi Phagwara. During this camp Head and Dean School of Agriculture Dr. Ramesh Sadawarti has discussed about the advent of flying trade has enabled companies to access new markets, optimize supply chains, and respond swiftly to consumer demands, ultimately driving economic growth and innovation. Event was covered by prestigious news agencies and same can be check on the below link:

[Click here](#) for more information...

## **OUTREACH ACTIVITIES**

The event was the Spinal Cord Injury Rehabilitation Conference, named 'Vistaar-2023' organized at the Lovely Professional University (LPU) campus. The conference was jointly organized by the Spinal Cord Injury Association of India and LPU at the Shanti Devi Mittal Auditorium. The conference aimed to sensitize society and various agencies to adopt stringent measures for the prevention of such injuries. Nearly 100 persons with spine injuries, even from far-off cities participated in the conference. To provide support to the conference leading personalities from civil administration, police, health, industry and NGOs participated in the conference. LPU Chancellor Dr. Ashok Kumar Mittal, while addressing the affected and the accompanying relatives, commended the Spinal Cord Injury Association Foundation for their commendable work. He also shared that LPU has also framed a scholarship policy to ease the financial burden of individuals with Spinal Cord Injury (SCI). LPU provides 100% scholarships to such students.



Spinal Cord Injury Rehabilitation Conference- Vistaar-2023

### **Sikhya, Sehat, Rojgar (Education, Health, Livelihood) - A Tech-Enabled Initiative for Wellbeing**

The project, Sikhya, Sehat, Rojgar (Education, Health, Livelihood) - A Tech-Enabled Initiative for Wellbeing, seeks to address crucial life gaps for rural communities. By harnessing technology, it aims to empower these populations and enhance their overall well-being.

- Enhance access to quality education by utilizing online platforms, equipping individuals with career options, raising awareness of educational opportunities, and providing access to digital libraries, educational apps, and job listings tailored to their qualifications and skills.
- Boost health literacy by offering informative resources on preventive healthcare, disease management, and access to telemedicine services.
- Foster awareness of agriculture-based enterprises and income generation by delivering training in skills such as organic farming, integrated farming, and water harvesting for irrigation, ultimately supporting income generation.

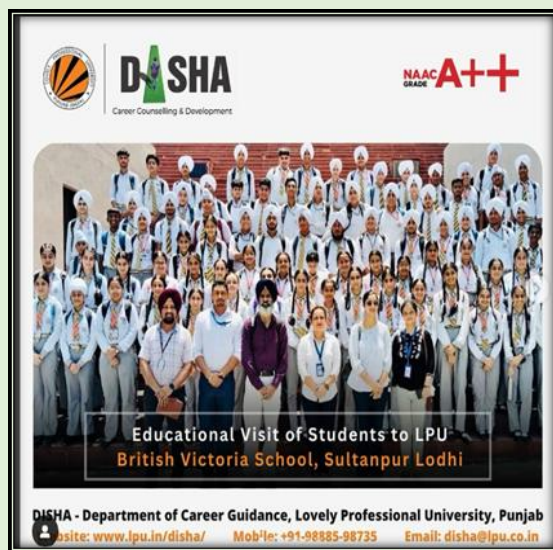


## Disha

Lovely professional university is conducting workshops, seminars and providing carrier counselling for students and teachers of nearby schools since 2012 that empowers students to make their choice in selecting their career under program. Till now more than 70,000+ school students from various renowned schools participated in career counselling sessions incorporated with psychometric test. Also 5000+ teachers and principals of renowned schools attended the workshops and seminars on topic of education relevance. The main pathways of DISHA program are:

1. Holistic Development: Fostering overall personal development, including communication skills, leadership, and teamwork, to prepare individuals for the workforce.
2. Skill Development: Equipping individuals, especially youth, with skills that enhance employability and career prospects.
3. Career Awareness: Providing information about various career options, including traditional and emerging fields.
4. Guidance and Support: Offering personalized counseling to help individuals identify their interests, strengths, and potential career paths.
5. Educational Resources: Facilitating access to educational opportunities, vocational training, and certifications relevant to local job markets.
6. Entrepreneurship Promotion: Encouraging self-employment and entrepreneurship by providing training and resources for starting small businesses.

These objectives aim to empower individuals with the knowledge and skills needed to build successful careers and improve their livelihoods.



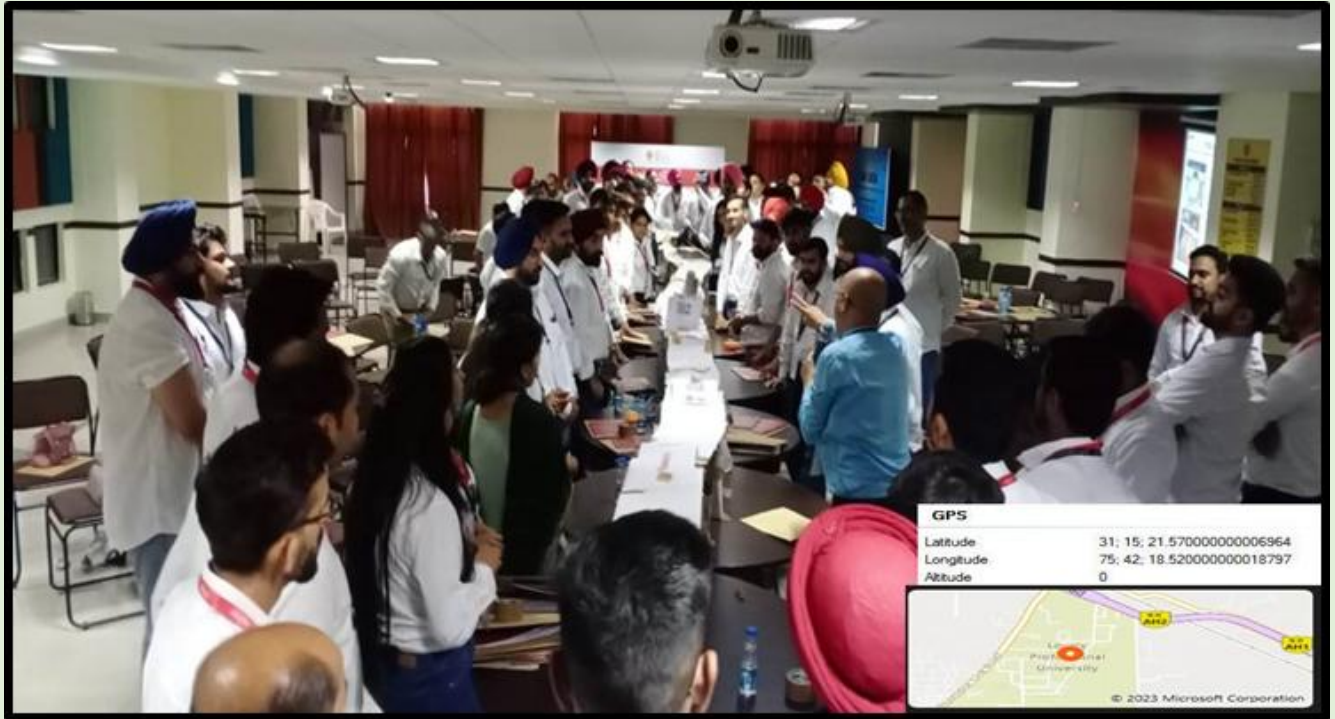
## EXECUTIVE DEVELOPMENT PROGRAMS

To deliver high-quality instruction and foster sustainable development, Lovely Professional University aims to establish itself as a premier global forum for learning and development, renowned for advancing the professional excellence of both academic and administrative professionals. During the 2022-2023 session, the university conducted numerous executive development programs in both offline and hybrid mode after pandemic. These programs covered a range of modules, including Leadership, Life Skills, Business Development, Talent Management, Family Business Management, Technical Skills, and Train the Trainer programs.

Executive development program titled GOOD TO GREAT: The Path to High performance Culture for executives of Jujhar group was conducted for executives of Jujhar Group by Lovely Professional University on 21<sup>st</sup> may 2023. The need for the program arose as the leadership team of Jujhar Group attended a similar program at the University and felt the learnings from their experience were useful to take the organization to the next level.

The program was divided into three sessions:

**Session 1. One Team One Vision:** The participants were sensitized to work in alignment with the Vision of the organization which is to be among the most admired organizations across the nation.



Bridge the Bridges activity by participants

### **Session 2. Passion & Engagement at Workplace:**

The session aimed at developing a deeper sense of purpose, workplace engagement and re-igniting the passion at workplace. The participants were posed with scenarios that brought out the forces prevailing in VUCA world.

Session 3. Accountability for Leaders: This session focused on creating a culture of accountability by sharing best practices for leaders. Story Telling, Karaoke and Music and Team Games were used as a pedagogy to create positive beliefs for the participants. The participants expressed a rejuvenated response for addressing the challenges as one team and group synergy will take them to higher achievements.



### LPU Team addressing strengths of Jujhar Group

Management Development Program on Invisible to Visible: Being Assertive was organized by Human Resource Development Center and Mittal School of Business, LPU for Aspiring Entrepreneurs, Corporate Professionals Faculty members and Research Scholars/Students from 04<sup>th</sup> May to 10<sup>th</sup> May 2023. The program aimed at developing assertiveness in the participants so that they can communicate their views, feelings, and needs to others in a respectful manner. The deliberations focused on the Increasing leadership effectiveness Quotient. Addressing assertiveness issues for stepping up the leadership position, Practicing assertive behaviors to value oneself and developing a positive self-image for a balanced life.



The focus pointers were:

- Understand “AAP”
- Attitude Renewal
- S.K.I.N
- Good Ideas and Good People
- Permission to be Real “You”
- Leading a Balanced Life

## **COMPETITIONS AND HACKATHONS**

Lovely Professional University aims to cultivate an environment where students not only acquire theoretical knowledge but also have numerous opportunities to apply it in real-world situations. The university is recognized for promoting a vibrant learning atmosphere that encourages students from diverse disciplines to organize and engage in various national and international competitions, hackathons, and skill development events across fields like technology, business, arts, and sports. These events provide students a platform to showcase their talents, innovative ideas, and problem-solving abilities. Additionally, students are encouraged to leverage the skills gained from these experiences to align with assessment methods. They have actively participated in and earned accolades at events such

as the World Skill Competition, Supra SAE, Efficycle, Gokart, Techkriti, and the Smart India Hackathon (SIH) 2023.



Smart India Hackathon



Go kart championship

## CONCLUSION

LPU's initiatives aimed at achieving SDG 4 are producing encouraging outcomes. Our efforts, including executive development programs and outreach activities like adopting slums and villages, as well as implementing development programs in nearby areas focused on modern farming techniques, are all designed to combat poverty through quality education. Moving forward, LPU will persist in its mission to enhance education quality, contributing to a better future for India and the world.





# SDG 5 – GENDER EQUALITY

**Introduction:** Lovely Professional University (LPU) is committed to promoting gender equality and empowering people of all gender identities in alignment with the United Nations Sustainable Development Goal 5 (SDG 5). This commitment is reflected in various programs and activities designed to address the challenges faced and to foster an inclusive environment. LPU’s unwavering commitment and concerted efforts in achieving gender equality are visible in word and deed. By addressing the root causes of gender inequality and implementing targeted interventions, we strive to create a world where every woman, girl and gender inclined can thrive and contribute to sustainable development.

## 1. GENDER SENSITIZATION PROGRAMS.

LPU’s Gender Sensitization Programs aim to foster awareness and understanding of gender issues among students, faculty, and staff. These programs include workshops, seminars, and interactive sessions that challenge stereotypes and promote gender equality. By creating a more informed and empathetic campus community, LPU strives to eliminate gender biases and cultivate a culture of respect and inclusivity.



POSHA Training



SAKSHAM: Safety of Women and Gender Sensitization

## 2. EMPOWERMENT INITIATIVES

Empowerment Initiatives at Lovely Professional University (LPU) focus on providing opportunities and resources for women and marginalized genders to achieve their full potential. These initiatives include leadership training, skill development workshops, and entrepreneurship programs. By empowering individuals with the tools and confidence they need, LPU supports their journey towards personal and professional success. LPU actively promotes gender equality through its empowerment initiatives and events, aligning with Sustainable Development Goal 5. These activities are designed to foster an inclusive and equitable environment for all



International Women's Day, 2023 @ LPU



LPU's Women-Boxers excelled in Asian Games, 2023



LPU's Women-Boxers excelled in Asian Games, 2023



LPU alumna wins Mrs. India Queen of Substance 2022

## **NETWORKING, COUNSELLING AND MENTORING**

LPU's networking, counselling, and mentoring programs are designed to offer guidance and support to students and staff. These programs connect individuals with mentors and peers who can provide advice, facilitate competency development through HRD programs, and offer counselling services. Through these initiatives, LPU fosters a sense of community and belonging, helping individuals confidently navigate their academic and career paths, thus reinforcing gender equality.

## **DIVERSITY AND INCLUSION POLICIES**

LPU is committed to creating a diverse and inclusive environment where everyone feels valued and respected. The University policies are aimed at promotion of diversity and inclusion of all individuals, regardless of gender, race, ethnicity, or background to provide equal access to opportunities and resources. These policies are regularly reviewed and updated to reflect best practices and promote a culture of equity and inclusion

## **EDUCATIONAL SCHOLARSHIPS AND FINANCIAL AID**

Sustainable Development Goal 5 (SDG 5) aims to achieve gender equality and empower all genders. Providing educational scholarships and financial aid is crucial in this effort, as it ensures that women, girls and transgender have equal access to education, thereby promoting their economic independence and social empowerment. To support gender equality in education, LPU offers a range of Educational Scholarships and Financial Aid programs. These programs are designed to reduce financial barriers and provide access to quality education for women and other underrepresented groups. By investing in the education of these individuals, LPU helps to create a more equitable and just society.



STEM Scholarship

## **RESEARCH AND DEVELOPMENT**

LPU's commitment to gender equality extends to its Research and Development efforts. The university encourages and supports research projects that explore gender issues and contribute to the body of knowledge on gender equality. By fostering a research culture, LPU aims to inform policy and practice, driving positive change for promoting gender equity. The University has implemented several

initiatives to support female researchers, ensuring they have the resources and opportunities needed to excel in their fields.

LPU's female scientists have achieved a remarkable milestone by being featured in Stanford's top 2% of Scientists worldwide list. This recognition highlights their exceptional contributions to research and innovation, showcasing the university's commitment to excellence and gender equality in science



• • • • • • • • • •

  
***Dr. Monica Gulati,***  
***Registrar, LPU***

  
***Dr. Navjeet Kaur,***  
***Associate Professor,***  
***Research and Development Cell***

  
***Dr. Rubiya Khurshed,***  
***Assistant Professor,***  
***Fovely Faculty of***  
***Applied Medical***  
***Sciences***

  
***Dr. Suman Lata Tripathy,***  
***Professor, School of***  
***Electronics and Electrical***  
***Engineering***

LPU faculty listed in Stanford's top 2% of Scientists worldwide



# SDG 6 – CLEAN WATER AND SANITATION

**Introduction:** LPU is proud to lead global efforts toward achieving Sustainable Development Goal 6, which ensures access to clean water and sanitation for all. Recognizing that water, sanitation, and hygiene are fundamental human rights, university has implemented innovative strategies to conserve water and promote best hygiene practices across campus for both residents and visitors. As water demand continues to surpass population growth and global water scarcity intensifies, our commitment to sustainable water management has positioned LPU as a global leader in advancing SDG 6. Through integrated water resource management, pollution reduction, and community engagement, we are fostering meaningful change that aligns with the United Nations’ mission to build a sustainable future. This report highlights LPU’s impactful teaching, research, and on-ground initiatives that contribute significantly to regional and global water sustainability.

## **Research on Water Quality and Conservation**

LPU actively supports research on water quality monitoring and remediation, focusing on innovative solutions for water conservation and sanitation. These projects aim to benefit both the university and the surrounding communities by advancing technologies, policies, and practices.

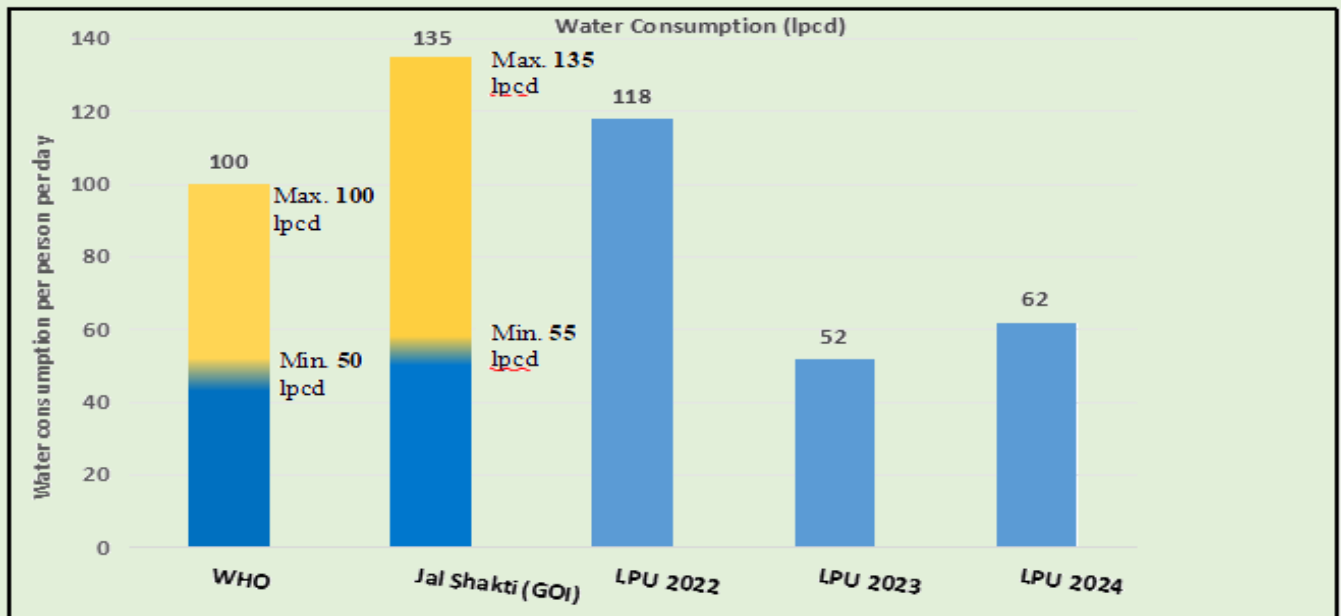
## **Water Consumption**

LPU has implemented an efficient water distribution system to meet community needs in quality, quantity, and pressure. Key initiatives include:

- Installation of water-saving fixtures such as automatic urinal sensors, low-flow taps, and two-button flush tanks.
- A robust infrastructure that provides safe drinking water access across campus, ensuring equitable access for all.

**Water Consumption Tracking and Grey Water Reuse:** The university monitors water consumption, utilizing resources like bore wells, RO waste, and a treatment plant. Greywater is extensively recycled for non-potable uses, including irrigation. The water abstraction limit of 4600 cubic meters/day is government-approved,

supporting a campus population of 23,500 with a low per capita consumption of 62 liters, below the NBC standard (135 Lts/person).



Water Consumption in the campus compared with International Standards

### **Water Usage and Care**

LPU maintains sustainable water usage by employing efficient fixtures, minimal-maintenance plants irrigated with greywater, and extensive use of RO systems. Regular inspections and testing ensure water quality, supporting hygiene and sanitation practices across the campus.

**Wastewater Treatment and Reuse:** LPU's wastewater treatment system exemplifies sustainability:

- **Primary STP:** With a 5 million liters per day capacity, it treats and recycles wastewater for non-potable uses like irrigation and landscaping.
- **Additional STPs:** Smaller 10,000-liter STPs at strategic campus locations enhance water conservation by treating wastewater for agricultural and landscaping needs.



5 MLD Sewage Treatment Plant installed in the campus

**Sewage Pipe Network:** A comprehensive network of pipes directs wastewater from university facilities to treatment plants, ensuring responsible disposal and reuse in alignment with SDG 6.

### **Preventing Water System Pollution from Polluted Water**

LPU is committed to addressing water pollution and conservation, recognizing the finite nature of freshwater and the threats posed by climate change and pollution. To improve water quality, LPU reduces pollution by eliminating waste dumping, minimizing hazardous chemical releases, and promoting recycling. The university treats campus water and prevents pollutants from entering pipelines using loft tanks. LPU also educates students, staff, and industrialists on pollution prevention and best water management practices. Additionally, the university collaborates with local industries and agriculture to promote groundwater protection and engage in discussions on industrial pollution impacts, waste disposal, and pollution control technologies.



**Water Pollution Prevention Approaches:** LPU employs a robust system to prevent contaminated water from entering its infrastructure. Polluted water from laboratories and wastewater is directed to the Sewage Treatment Plant (STP) where it undergoes:

- **Biological Treatment:** Using the Activated Sludge Process, microorganisms in a bioreactor break down organic materials, generating nutrient-enriched sludge.
- **Tertiary Treatment:** Effluent from the bioreactor is further purified with sand and activated carbon filters, followed by sodium hypochlorite treatment to eliminate bacteria. Treated water is reused for irrigation and construction.

### Free Drinking Water Provided

LPU promotes sustainability and student welfare by offering free drinking water to students, staff, and visitors through multiple hydration stations across campus. This initiative encourages the use of reusable water bottles, reducing single-use plastic waste and promoting an eco-friendly environment. These stations make clean water easily accessible, contributing to health, hydration, and a reduction in the financial burden on students.



LPU encourage to use reusable bottles to both staff and students which has helped to make this campus plastic free

**University's Free Drinking Water Provision with Clean Water Concept:** LPU ensures an efficient, sustainable water supply with 32 boreholes powered by solar pumps and equipped with digital meters for accurate water extraction tracking. This system promotes responsible water use, supporting the university's environmental stewardship efforts and providing all community members with safe drinking water.

**Tackling Water Contamination through Plastic Waste Reduction:** In addressing plastic waste, LPU has banned disposable bottles across campus and implemented awareness campaigns to highlight plastic pollution's environmental impact. Educational signage promotes sustainable behaviors, fostering a culture of environmental responsibility and reducing the university's ecological footprint.

**Ensuring Easy Access to Free Drinking Water:** LPU's commitment to accessible drinking water enhances campus inclusivity, health, and sustainability. By reducing single-use plastic reliance, this initiative supports hydration, wellness, and community well-being, reinforcing LPU's dedication to sustainability and environmental stewardship.

**Ensuring Continuous Availability of Clean Water Across the University Campus:** All campus drinking water sources are equipped with RO systems and water coolers, ensuring that safe, purified water is accessible in every building. This initiative prioritizes health and convenience for all, reducing the need for single-use plastic and promoting a welcoming campus environment.

**Convenient Water Refill Stations Across Campus:** Multiple water refill stations across campus make hydration convenient and support the use of reusable bottles, promoting sustainability and helping students, staff, and visitors stay healthy.

**Dedicated Water Treatment Plants in Hostels for Continuous Purified Water Supply:** Each hostel has an RO plant that provides purified water to students, enhancing the quality of campus life and reducing bottled water dependence. This initiative reflects LPU's commitment to health, sustainability, and resource conservation.

### **Water-conscious Building Standard**

LPU's water-conscious buildings feature rainwater-collecting saucer walkways, reducing runoff and conserving water. Additionally, campus roads use permeable paver tiles, facilitating groundwater recharge, preventing erosion, and supporting sustainable water management.



LPU's Water conscious Building Infrastructure constructed with side channels and along the curves of the building's corners, directing it into specially designed drainage saucers

### **Environmental Peace Building**

LPU integrates environmental peacebuilding through sustainable water management initiatives, fostering collaboration among students, staff, and local residents. Optimized water flow rates across campus taps and an 80% reduction from full pressure aid in achieving a 40% water reduction target by 2029.

### **Water Conservation in Residential Buildings**

LPU promotes water conservation in residential areas with time-controlled water pumps, rainwater harvesting, and a robust sewage treatment system for horticulture reuse. The university replaces traditional fixtures with water-saving alternatives, including push-button taps and dual-flush toilets, encouraging mindful usage among residents.



University replaced all traditional fixtures to reduce unnecessary water flow

### **Water-Conscious Planting**

LPU prioritizes native, drought-tolerant plants in its landscaping to minimize water needs and promote biodiversity. The university employs xeriscaping, a landscaping approach that reduces water usage by up to 75% and eliminates fertilizers and pesticides, enhancing environmental health.



Drought Tolerant Plants installed in the campus

**Smart Irrigation Systems:** With smart irrigation systems guided by real-time weather and soil data through agrometrology system, LPU optimizes water use

across campus landscapes. This system prevents overwatering, conserves resources, and aligns with the university's sustainability goals.

**Recycled Water Usage:** The university's use of treated wastewater for campus horticulture illustrates its commitment to water recycling, supporting green spaces year-round while conserving potable water. This innovative approach aligns with sustainable landscaping practices, protecting local water resources and fostering a healthier ecosystem.

### **Water Reuse**

LPU has implemented comprehensive water reuse practices as a critical component of its sustainability efforts under SDG 6, focusing on water conservation, resource management, and environmental stewardship.



Irrigating Green Spaces with Reused Treated Water for Water-Conscious Planting

**Irrigation and Horticulture:** Treated water from the university's Sewage Treatment Plants (STPs) is used for irrigation and landscaping. This sustainable approach

preserves freshwater resources by repurposing treated wastewater to maintain the campus greenery, including specific drought-tolerant plants.

**Toilet Flushing:** LPU uses treated water for toilet flushing, significantly reducing reliance on potable water. The water is distributed across campus via a dedicated 9-inch pipeline extending over a kilometer, demonstrating an efficient infrastructure that supports sustainable water management.

**Sludge Utilization:** LPU utilizes the sludge byproduct from water treatment as organic manure for campus landscaping. This practice reduces waste and the need for chemical fertilizers, contributing to soil health and campus sustainability.

**Additional STPs:** The university operates smaller STPs with 10,000-liter capacities, dedicated to key areas like main playgrounds and agricultural lands, further enhancing its water management capacity.

**Utilization of Treated Water:** Treated water from the 5 MLD STP is repurposed for multiple uses, including horticulture, agriculture, and cooling systems, which collectively reduce the demand for freshwater.

### **Preventing Entry of Polluted Water**

Loft tanks, following BMW guidelines, are installed at wastewater outlets for initial treatment, ensuring clean water quality before distribution within the campus.



Loft water tanks installed to prevent the entry of polluted water into the broader water infrastructure

### **Water Reuse Policy**

This policy defines LPU's structured approach to water conservation, aligning with SDG 6 objectives.

### **Key Elements of the Policy:**

**Applicability and Purpose:** The policy applies to all campus water management activities and aims to establish efficient water treatment, recycling, and conservation practices.

**Wastewater Treatment:** LPU operates three STPs with a total capacity of 5 MLD, reusing treated water for irrigation and cooling. Sludge is used as fertilizer, promoting a circular resource approach.

**Water Recycling:** Treated wastewater is used for flushing, landscaping, and construction. Groundwater recharge is supported by 39 pits, with expansion planned.

**Water-Saving Technologies:** High-capacity RO systems reduce water waste, while water meters track usage. Automated sprinklers optimize irrigation, and water-saving fixtures minimize restroom water usage.

**Future Plans:** Plans include additional STPs and a formal Water Reuse Policy aligned with SDG 6, ensuring continuous improvement in campus water sustainability.

**Water Reuse Measurement:** LPU actively measures reused water to reduce freshwater dependency, aligning with Sustainable Development Goal 6 (SDG 6). The Division of Waste Management Landscape Architecture and Environment monitors wastewater treated and reused for various operations, recorded through 32 digital water meters across campus. The university treats 2,500–4,000 cubic meters of wastewater daily for safe reuse in landscaping, aquaculture, vehicle cleaning, and cooling systems, reducing strain on local resources.

### **Water in the Community**

Aligned with SDG 6, LPU supports nearby communities through water conservation education and initiatives, including 24/7 fire hazard prevention. Research focuses on interdisciplinary solutions for water conservation, urban systems, and ecological restoration. Outreach includes informative signage, SES REC Action Plan awareness, drought-tolerant plant cultivation, and community resource conservation efforts, such as cleaning drives and awareness plays, fostering environmental stewardship and sustainable practices in the region.

**Water Challenges Research and Community Engagement:** LPU addresses local water challenges through a strong focus on interdisciplinary research in areas like water management, agricultural use, and water-energy connections. Community initiatives include hoardings on water usage, drought-tolerant plant promotion, and events such as the Sutlej Stream Cleaning Drive. Practical demonstrations of sustainable techniques like rainwater harvesting further empower local residents and promote responsible resource use.

**Water Management Educational Opportunities (Integrated Water Management Efforts):**

- *Water Access:* LPU ensures sustainable water distribution with appropriate quality and pressure, contributing to SDG 6 targets.
- *Water Scarcity:* By promoting rainwater harvesting, recycled wastewater use, and groundwater recharge, LPU mitigates scarcity and relieves natural water bodies.
- *Water Quality:* The university ensures safe drinking water, continuously monitoring quality to meet safety standards.

**Implementation Water Resources Management:** LPU has integrated water conservation and sustainable usage practices into its resource management framework, emphasizing efficient water usage as essential for sustainability. These efforts support social, economic, and environmental resilience, particularly in facing unpredictable changes.

**Water Quality and Ecosystem Management:** Recognizing water's limited availability, LPU commits to maintaining freshwater quality and protecting ecosystem health. This initiative supports drinking water, food production, and recreational needs by addressing contaminants and safeguarding ecosystems.

**Water, Sanitation, and Hygiene Management (WASH):** LPU's WASH strategy focuses on safe water and sanitation access as essential for health and development, aiming to fulfill the SDG goal of sustainable water management for all.

**Strategy on Risk Management in Water and Sanitation:** LPU's approach addresses natural and socioeconomic risks in water and sanitation, focusing on the needs of vulnerable communities. By implementing adaptable solutions, the university enhances resilience and supports sustainable development.

**Promoting Conscious Water Usage:** LPU has launched campus-wide campaigns to encourage mindful water consumption among students, staff, and visitors. These initiatives focus on water-saving practices for drinking, cleaning, and irrigation, supported by monitoring systems and efficient technologies like smart



irrigation, greywater recycling, and rainwater harvesting. Informative signage placed across campus reinforces these efforts, providing practical tips to reduce water wastage. LPU's approach aligns with Sustainable Development Goal (SDG) 6, promoting sustainable water management and raising awareness about responsible water use.



Signages installed at various locations in Campus promoting conscious water usage

**Additional Signages Near Water Refill Stations:** Strategically placed informational signs remind the campus community of the importance of water conservation. Messages encourage actions like using refillable bottles and minimizing waste, fostering a culture of environmental stewardship on campus.

### **Off-Campus Water Conservation Support**

LPU's outreach extends beyond its grounds, aligning with SDG 6 to support local and global water conservation. The university collaborates with community groups,

industry partners, and NGOs on initiatives ranging from sustainable water practices to environmental resilience. Research by LPU's Division of Research Development Cell (DRD) addresses challenges in water conservation and climate adaptation, benefiting both communities and the environment.

**Udaipur Urban Planning Initiative:** LPU's student engagement in the "Udaipur Development Plan-2044" exemplifies its commitment to urban planning and sustainable water management. This initiative proposes infrastructure improvements, including a new 60 MLD water treatment plant to address sewerage demands and flood management in Udaipur.

**Sustainable Water Extraction on Campus:** In compliance with government regulations, LPU extracts groundwater sustainably, employing 32 certified drinking water bores and shallow wells powered by solar energy. The campus utilizes rainwater harvesting to recharge groundwater levels, supported by gravity-based purification systems to minimize energy consumption.

### **Rainwater Harvesting Infrastructure**

LPU's extensive rainwater harvesting system includes 39 bores that capture rainwater, promoting groundwater recharge and reducing dependence on external water sources. A dedicated pipeline network collects rainwater from terraces, while campus roads and permeable walkways are designed to direct runoff towards recharge wells. This integrated system has raised the water table by 6 feet, supporting sustainable water management on campus and contributing to ecosystem resilience.

**Cooperation on Water Security:** LPU prioritizes water security as essential for life, the economy, and national security. LPU has implemented advanced infrastructure, including sensor-based urinals, push-button taps, dual-flush systems, and spray jet nozzles, to minimize water wastage and ensure availability. Through partnerships and innovation, LPU advocates for a scientific, data-driven approach to water law and policy. Collaborating with stakeholders, LPU aims to safeguard water systems, implement sustainable management practices, and mitigate the impacts of floods and droughts. By advancing water security strategies, LPU supports SDG 6 to provide clean, reliable water for all, working towards a sustainable water future.

**Core Water Sustainable Development:** LPU adopts cross-cutting approaches to provide equitable and reliable access to clean water, using water as a catalyst for community development. By managing trans-boundary water resources and integrating disaster risk reduction, LPU protects lives and livelihoods. Initiatives in

ecosystem restoration, conflict reduction, sanitation, environmental peacebuilding, and food production contribute to resilient communities. LPU also focuses on capacity development, climate change adaptation, innovative financing, and reducing water and energy consumption to support sustainable management.

**LPU SDG 6 Sustainable Development Agenda:** The Water Action Agenda aims to achieve universal access to safe drinking water and sanitation by 2029. LPU provides RO-filtered water, safe sanitation, and hygiene facilities campus-wide, with treated water enhancing irrigation and minimizing pollution. Efficient water-use practices and low water stress ensure sustainability. Collaborations with government agencies support trans-boundary water management and ecosystem restoration. LPU's partnerships with UNICEF and RDWSD contribute to rural sanitation through Swachh Bharat and Jal Jeevan Missions, improving health and hygiene. Awareness campaigns promote community participation in water conservation and ecosystem protection.

**LPU's UN 2023 Water Conference Review:** LPU celebrates World Water Day to promote awareness and action for water and sanitation. Architecture students shared their work in Rajasthan, improving water supply infrastructure in collaboration with local authorities. Faculty research focuses on climate change's impact on water cycles, highlighting issues like droughts, floods, and glacial melting, which threaten ecosystems and economies. Addressing these global challenges, LPU emphasizes sustainable water management to secure resources for future generations.



# SDG 7 –AFFORDABLE AND CLEAN ENERGY

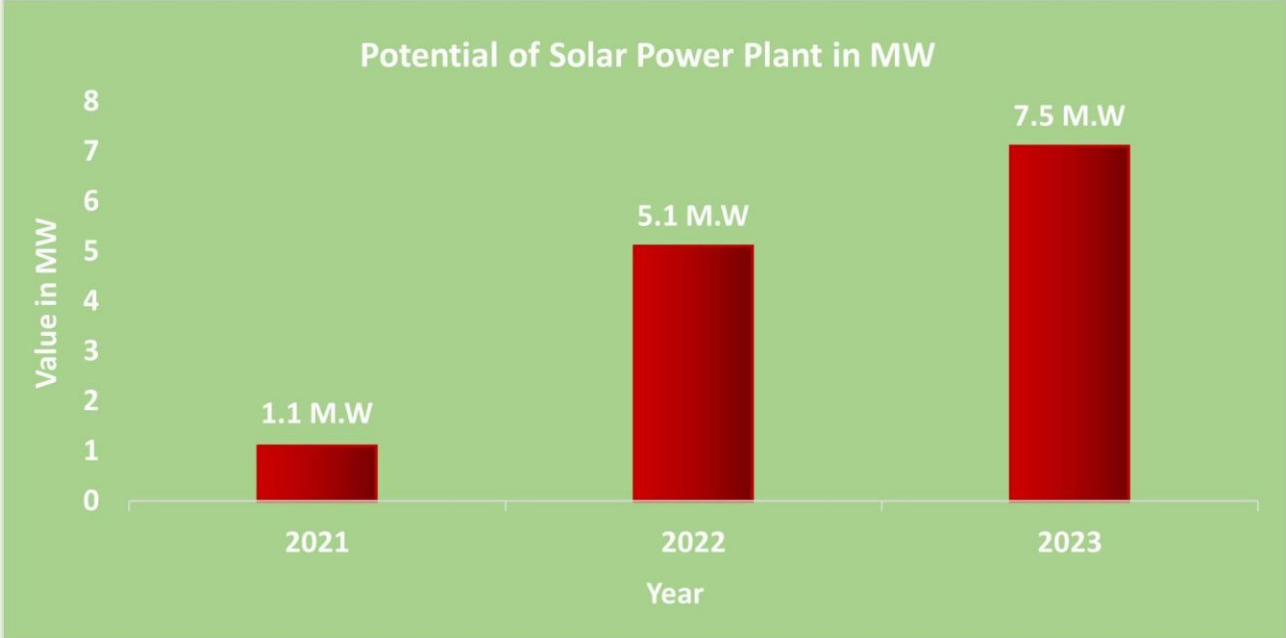
**Introduction:** The growing global population is a significant contributor to environmental pollution, necessitating the adoption of clean energy resources to safeguard the environment's future. Despite the continued reliance on coal-based power plants for electricity generation, a concentrated effort to expand clean and affordable energy capacity is essential for transitioning from fossil fuels to renewable energy systems. Solar energy plays a crucial role in this global shift.

India, in particular, faces the dual challenge of meeting its population's energy demands while participating in global climate change mitigation efforts. According to the "Energy Statistics 2020" report by the Ministry of Statistics and Plan Implementation, the Government of India, the country's renewable electricity generation capacity grew by 8.51% in one year, resulting in lower costs and increased usage. The Renewable Energy Country Attractiveness Index (RECAI) 2022 ranks India's renewable energy sector as the third most attractive in the world. This shift to renewable energy requires a determined effort to build clean and affordable energy capacity. India's solar and wind power potential is estimated at 748,990 MW and 695,509 MW, respectively, with a national goal of 500 GW of renewable energy capacity by 2030.

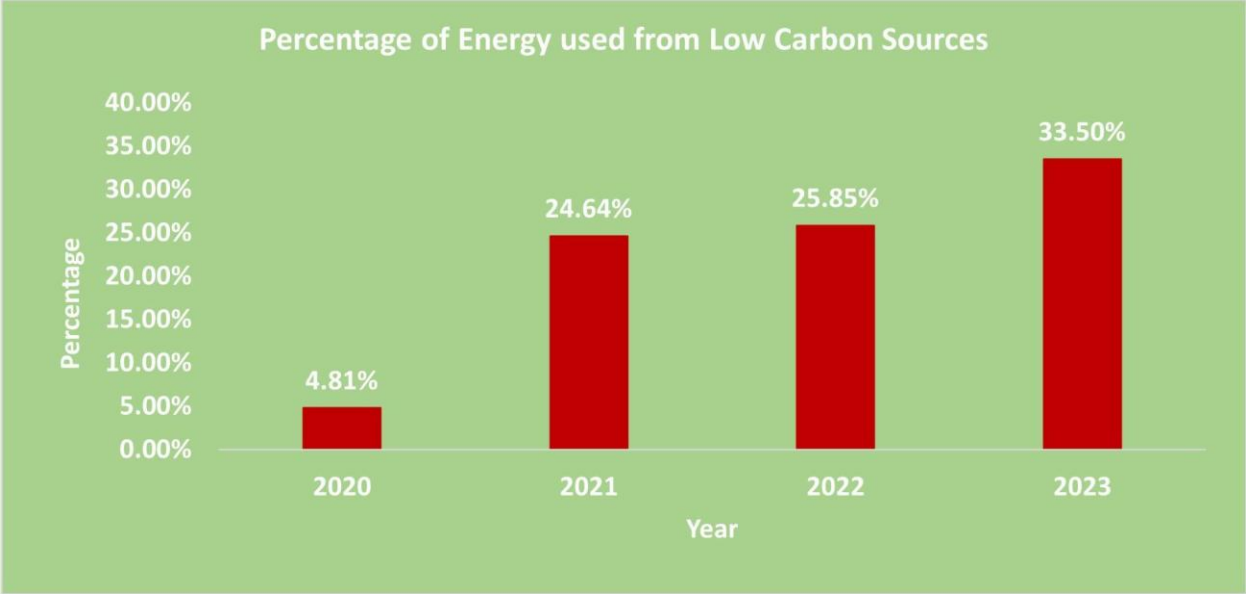
While fossil fuels dominated the twentieth century, the twenty-first century marks a transition to renewable energy. Addressing the challenges of growing energy demand and reducing carbon emissions will require innovative technologies and comprehensive energy solutions. Lovely Professional University (LPU) aligns with the Government of India's vision by committing to clean energy deployment, academic programs, research, professional training, and consulting in renewable energy, energy-efficient buildings, energy conservation, and sustainability management. The university boasts a 7.5 MW solar power plant and an energy performance index of 33.42 kWh/m<sup>2</sup>/year, significantly lower than the standard for a 5-star rated building by the Bureau of Energy Efficiency, Government of India.

**Progress in Energy Used from Low Carbon Sources:** The energy transition towards low-carbon sources demonstrated a positive trend over the years 2021 to 2023. In 2021, energy production from low-carbon sources stood at 1.1 MW,

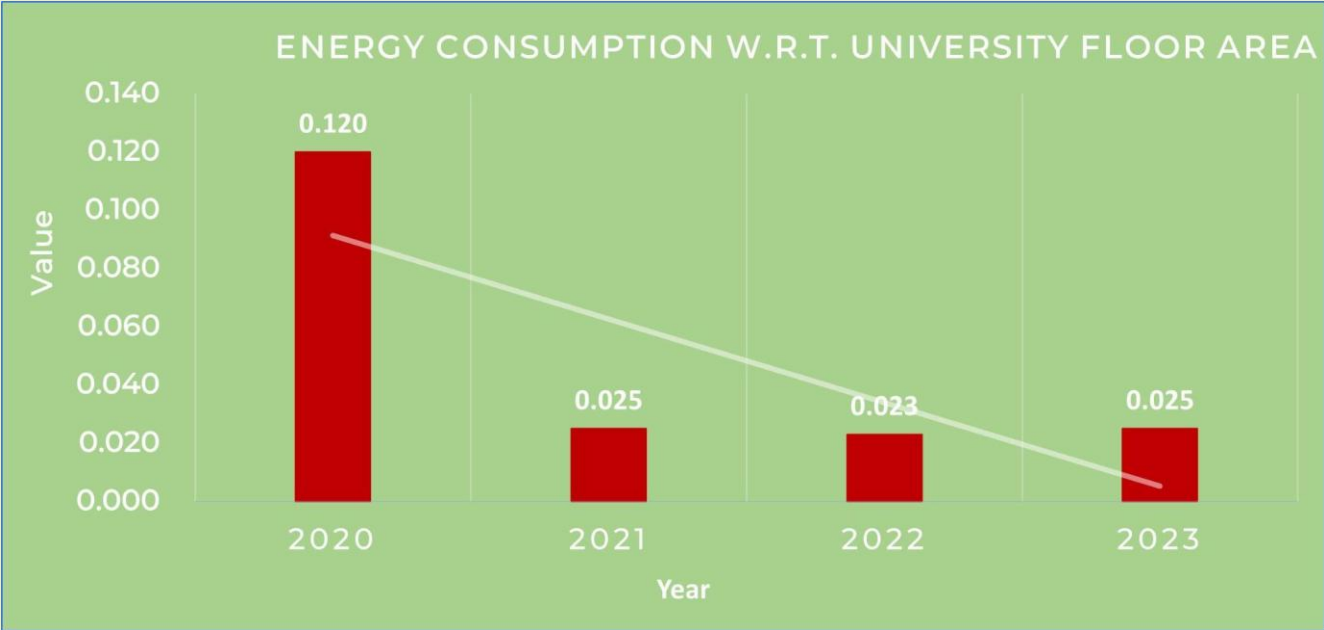
indicating the modest beginnings of a more sustainable energy mix. By 2022, this figure increased significantly to 5.1 MW, reflecting growing investment and commitment to cleaner energy options. In 2023, the momentum continued, with a notable increase to 7.5 MW.



The share of energy generated from low-carbon sources experienced notable growth between 2020 and 2023. In 2020, these sources made up just 4.81% of the total energy generation. However, by 2021, there was a significant rise, with low-carbon sources contributing 24.64% to the energy mix, signaling a major shift toward cleaner energy. This upward trend persisted in 2022, reaching 25.85%, and continued to climb to 33.50% in 2023. These figures demonstrate a sustained commitment to reducing carbon emissions and transitioning to more sustainable, environmentally friendly energy production, highlighting a promising path toward a greener energy future.



Lovely Professional University has been making strides in energy efficiency, as seen by the significant decline in energy consumption per unit of floor area over recent years. In 2020, the consumption was 0.12 units per square foot or square meter, but this dropped drastically to 0.025 in 2021, showcasing substantial improvements. The trend continued into 2022, with a further reduction to 0.023, indicating ongoing efforts towards sustainability. Although there was a slight increase to 0.025 in 2023, the overall decrease reflects successful initiatives like enhanced insulation, upgraded HVAC systems, and adoption of renewable energy.



## Energy Conservation Measures for Carbon Management and Reducing Carbon Dioxide Emissions

**Solar Power Plant:** University Commitment to guidelines contributes to the sustainability goal of the United Nations, it is pertinent to mention that the University has installed a rooftop solar PV plant of 1.1 MW in the year 2018. These efforts align with the university's commitment to the sustainable development goals set by the United Nations. The installation of rooftop solar PV plants and the potential of a 7.5 MW solar power plant further highlight the university's dedication to utilizing renewable energy sources and reducing its carbon footprint.



Solar Power Plant established on the rooftop

**Sustainable Green Buildings:** As part of the university's commitment to SDG GOAL, the university has set up green infrastructure buildings with energy and environmental design that contribute to conservation and sustainability.

**Solar Irrigation System:** Three units of solar-based irrigation systems were installed by the University. Each unit has a capacity of 5 horsepower. The drip irrigation

system is assembled with these motors to irrigate orchards. This system is highly efficient to minimize the loss of water and efficient use of energy and water resources.

**Reducing Carbon Footprint:** The University has taken various initiatives to reduce carbon emissions by planting various species of plants and trees as well as by installing solar-powered irrigation systems and solar power plants. University promotes green transport by using solar-powered vehicles, bicycles, and e-rickshaws.

**Sustainable Transport:** An electric 36 battery-powered e-rickshaw has been operating on campus that connects the university's principal buildings, departments, and dormitories.

**Energy-Efficient Building:** In an era of smart cities, sustainable buildings and contemporary interiors, the University designed an energy-efficient building with specialized architects. They have also trained our students to become lateral thinkers by focusing on the critical design approach. With exposure to an international environment, and access to the latest tools, software, and technology, our students also become architects who create buildings and infrastructure that are globally acknowledged. Due to the incorporation of energy-efficient building strategies, the energy consumption density of the LPU buildings is much lower than a 5-star rated building by the Bureau of Energy Efficiency, Government of India



Energy Efficient Buildings



**Amphitheater:** The University has 3 amphitheaters of different capacities to conserve energy by organizing cultural events, competitions, and plays in natural light. The university is committed to increasing its numbers in the future.

**Green transportation** Solar power bus and battery-operated e-rickshaws on the campus have been operating since 2017. 36 e-rickshaws and 10 e-golf kart services connecting its major buildings, departments, and hostels for students and faculty members. Nearly 100 Km of mileage is given by each e-rickshaw. In this way, the university strives to combat the detrimental carbon-emitting conventional fuel 10 E-polokart are also launched with improved sitting capacity vehicles and helping towards the improvement of air quality at the micro-level.



E-GolfKart

**Biogas plant:** To reduce greenhouse gas emissions and the risk of pollution to waterways, organic waste can be removed and used to produce biogas, a renewable source of energy. Biogas contains roughly 50-70% methane, 30-40% carbon dioxide, and trace amounts of other gases. The University currently has 3 cubic meter operating biogas systems across the campus to process kitchen waste.

**Environment and Energy Audit to identify areas where energy waste is highest:** Lovely Professional University Regularly conducts (yearly basis) Environment and

Energy audit with the objective of assessing and evaluating environmental and energy performance, identify areas where energy wastage is highest, and develop strategies for achieving greater sustainability and efficiency. Environmental and energy audits play a crucial role in helping University to identify and address sustainability and efficiency challenges, ultimately contributing to a more environmentally responsible and financially sound operation.

**Energy efficiency plan to reduce energy consumption:** To reduce the energy consumption at the university level, the University has well-defined guidelines to be followed in the university.

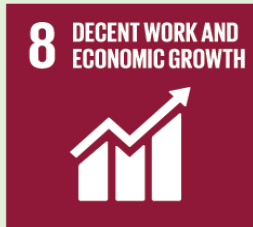
**Local Education Programmes:** Lovely Professional University is launching a six-week program titled “Empower the Future: A Community Initiative for Energy Efficiency and Clean Energy,” starting from 11 October 2023. This initiative is aimed at local community members, including households, small business owners, educators, students, and public sector workers. The program seeks to raise awareness about the importance of energy efficiency, educate participants on the benefits of clean energy, and provide practical solutions for reducing energy consumption in homes, businesses, and public spaces. It also promotes the adoption of renewable energy technologies, such as solar power, and encourages collective efforts to reduce carbon footprints and contribute to sustainable development. Each session covers a specific topic, ranging from household energy-saving practices and clean energy solutions to innovations in the clean energy sector and community advocacy.

**Inform and Support the government in clean Energy and Efficient Technology:** The university has a dedicated Sustainable Development Goals (SDG) Cell with the aim to achieve carbon carbon-neutral campus as per UN SDGs.

**Pledge:** The University pledged in 2016 to meet net zero emissions as per UN SDGs by 2029.

**Support to the Local Industry aimed at improving Clean Energy-Efficient Technology:** Lovely Professional University signed MoUs with various industries at local, regional, national, and international levels that aimed at improving energy efficiency and clean energy. LPU offered numerous opportunities for students to work directly with industry on live and entrepreneurial projects. These industry projects provided students with insights into the latest trends in the corporate world, helping them become competitive and prepared for real-world challenges.

**Assistance for startups that foster and support a low-carbon technology:** Lovely Professional University (LPU) provided robust support and assistance to startups, particularly those focused on low-carbon technology and sustainable innovations. The university operated a dedicated Division of Innovation and Entrepreneurship that aimed to foster startups working on green initiatives. Students received various ideas and inputs to help them establish their startups. LPU also promoted initiatives that contributed to the development of a clean and green environment on campus. The university offered resources such as mentorship, funding, access to facilities, networking opportunities, and business development support, ensuring that these startups had the necessary tools to thrive. The Division of Innovation and Entrepreneurship conducted multiple activities to further promote and support low-carbon technology initiatives within the university.



# SDG 8 –DECENT WORK AND ECONOMIC GROWTH

**Introduction:** Lovely Professional University (LPU), Phagwara is committed to promotion of decent work and economic growth (SDG 8) for sustainable development of higher education. Recognizing the critical role that education and innovation play in shaping a prosperous and equitable future, the University consistently aligned its vision and activities with the principles of SDG 8. As India embarks upon its journey towards VIKSIT BHARAT by 2047, the National Institution for Transforming India - NITI AAYOG emphasizes upon a monitoring tool 'SDG India Index' which seeks to encourage healthy competition at the sub-national level between states and union territories. On similar lines by adopting the principle of 'Localization', Lovely Professional University launched project SUSTAIN in the year 2022-23 and monitors its performance through Outcome Based Planner which depicts the relative performance of schools and departments of the university.

## 1. Sustainable Operations and Facilities

- **Residential Facilities:** LPU provides comprehensive housing options for over 25,000 people, including staff, students, and guests, with amenities like gyms, laundry, and cafeterias.
- **On-campus Creche and Daycare:** Supports working parents by providing safe, child-centered facilities.
- **Shopping Complex (UNI-CENTRE):** A campus shopping center offers essential items and services, contributing to convenience and economic sustainability.

- **Sports Facilities:** With advanced sports amenities, LPU supports students and staff, promoting holistic development and athletic excellence. In the Paris Olympics 2024, LPU had one of the largest contingents, with multiple medalists.



LPU contingent at Paris Olympics 2024

- **Transportation:** LPU provides eco-friendly transport options and a comprehensive bus service for staff and students.



Eco-Friendly Transport facility

## 2. Employment and High-Performance Culture

- **Diversity in Hiring:** LPU's recruitment policies emphasize inclusivity, hiring across regions and promoting gender diversity.
- **Outcome-Based Planner:** Departments collaborate to set performance targets, promoting transparency and accountability.
- **Employee Engagement:** Regular celebrations and recognition programs (e.g., LAMHE for retirees, SANIDHYA awards) foster a positive work culture.

## 3. Health, Safety, and Well-being

- **Campus Security:** Over 400 security personnel, extensive CCTV coverage, and turnstile gates ensure safety.
- **Medical Facilities:** The Uni Health Centre provides emergency care and a variety of medical services, with 24/7 availability.

## 4. Training and Skill Development

- In 2022-23, LPU conducted 187 training programs for faculty, staff, and students, enhancing skills across fields such as AI, digital marketing, and scientific writing.

## 5. Economic Access and Student Support

- **Internship and Placement:** Campus recruitment drives resulted in job placements for 7,241 students and internships for over 10,000.
- **Scholarships and Financial Aid:** Scholarships were awarded to over 12,000 students, with programs for economically weaker sections and special categories.

## 6. Research and Innovation

- **Research Excellence:** The Research & Development Cell facilitated significant research funding and supported high-impact publications.
- **Incubation and Entrepreneurship:** LPU's incubation centers and entrepreneurship programs received ₹393.62 lakhs in funding, supporting startup growth.

## 7. Community Engagement and Village Initiatives

- **Village Adoption Program:** LPU promotes sustainable practices in villages, including workshops on organic farming and environmental conservation.



Village Adoption Initiative by LPU

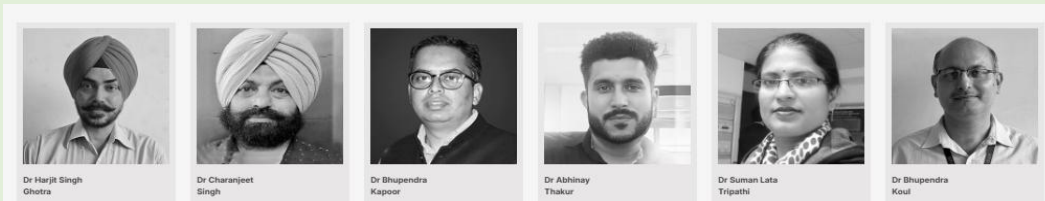
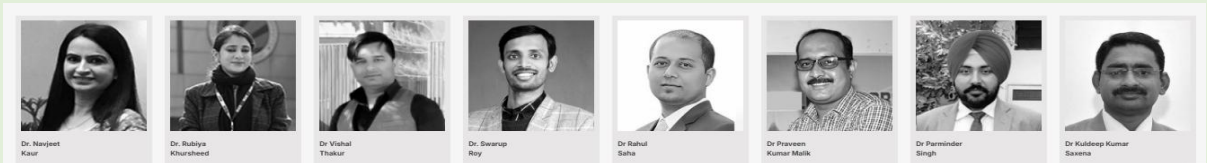
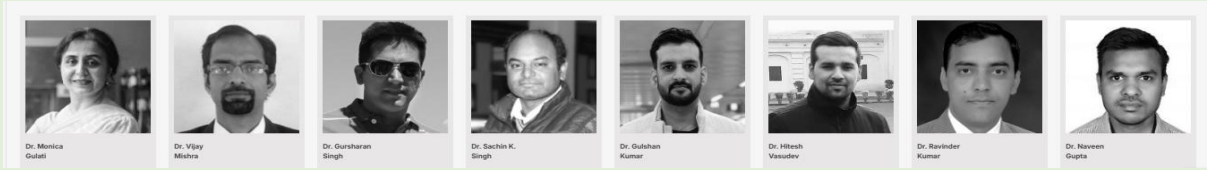
## 8. Achievements and Recognition

- **Olympics and Paralympics Success:** LPU students won medals at the Paris 2024 Olympics and Paralympics, celebrated with cash awards and honors.



Honouring ceremony of Olympians at LPU campus

- **Top 2% Scientists:** LPU faculty received recognition in Stanford's top 2% scientists list, highlighting the university's research impact.



Top 2% scientists as per Stanford University, USA





# SDG 9 – INDUSTRY, INNOVATION AND INFRASTRUCTURE

**Introduction:** Lovely Professional University is known for its modern campus, which features state-of-the-art facilities and a vibrant student community. The university emphasizes practical learning, research, and industry collaboration, ensuring that students are well-prepared for the challenges of the professional world. LPU also focuses on global exposure, with numerous international partnerships and exchange programs that enrich students' educational experiences. With a dedication to innovation and entrepreneurship, LPU supports students in developing their own startups and addressing real-world challenges. The university's comprehensive academic programs and supportive ecosystem aim to nurture well-rounded, future-ready professionals.

## Educational Initiatives

The institution employs various academic strategies to empower students, fostering mindsets that generate cost-effective solutions for local needs and SDGs-related challenges while supporting the incubation of their start-ups. LPU offers specialized programs at both the bachelor's and master's levels, featuring well-structured engineering courses and open minors in sustainable development. Starting an innovative venture requires a specific skill set. While many are eager to explore new frontiers, only a few possess the necessary aptitude and courage. Those with a background in Innovation and Entrepreneurship have the expertise required to transform ideas into viable opportunities and address emerging needs. LPU offers specialized courses in Innovation and Design Thinking, Family Business, Entrepreneurship Development, and Boot Camps. These programs enhance graduates' communication and analytical skills, focusing on plan development to achieve goals. Students learn the processes of successful innovation, enabling them to create, market, and launch new business ideas. The university also provides over number of multidisciplinary minors that encourage students to address SDG-related issues in their Capstone and Dissertation Projects.

## A few snapshots of State of the art class rooms, seminar halls, and cutting-edge laboratories



Laboratories



Classroom



Seminar Hall

## Innovation Projects

Innovation projects are initiatives undertaken by organizations to develop new products, services, and processes or enhance existing ones. These projects aim to stimulate creativity, explore novel ideas, and address challenges. Typically, they encompass phases of research, development, testing, and implementation. When executed successfully, innovation projects can result in a competitive edge,

improved efficiency, and greater customer satisfaction. Below are some examples of innovative projects carried out by LPU students.



Insect Bio Robot



Tread Cycle

S.No	Project Tittle	Link
1.	<b>HexDoc: A Robotic Assistant for Disaster Management</b>	<a href="#">click here</a>
2.	<b>Project N</b>	<a href="#">click here</a>
3.	<b>Food Pi, to monitor fridge hygiene</b>	<a href="#">click here</a>
4.	<b>LPU's annual Innovation and Graduating Project Expo- INNOTEK</b>	<a href="#">click here</a>

### Research Projects

The university is committed to enhancing capacity and diversity in STEM fields as part of its leading research agenda. This involves collaborative networking and interdisciplinary research focused on innovation pedagogy and advanced educational practices and programs. By partnering with industry, students benefit from transformative educational opportunities that also support educator training,

development, and advancements in STEM education through research, assessment, and innovation. The university's mission to impact policy and practice through applied social and cognitive research in contextually relevant settings drives its focus on technological innovations and STEM research. In this framework, the university has completed over 400 consultancy and 30+ research projects funded by industry, ranging from one to three months in duration.

The following table lists some of prominent collaborative projects. Apart from this LPU have gone through multiple projects which can be seen on link given below.

**<https://www.lpu.in/academics/research.php>**

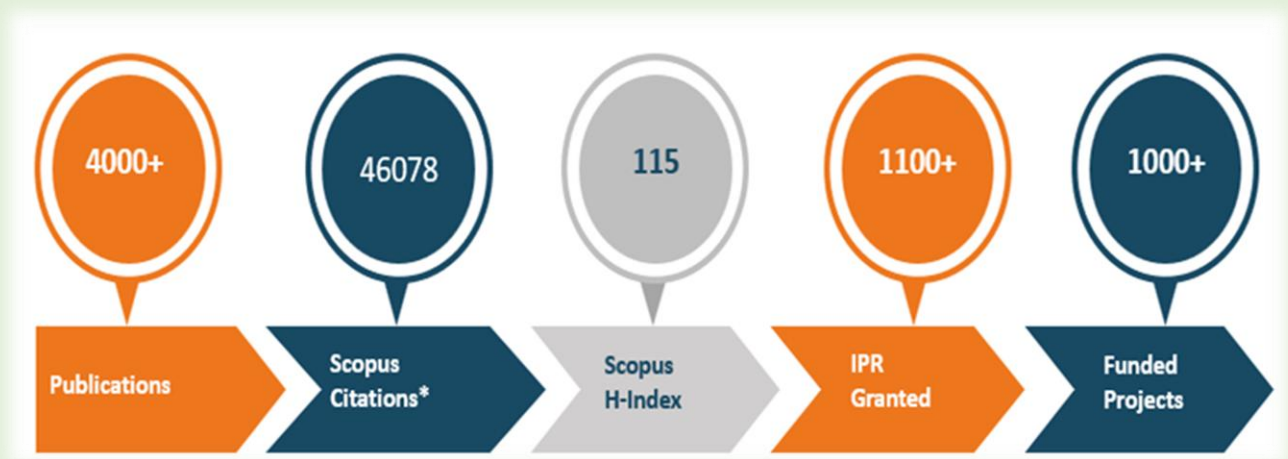
<b>Sr. No</b>	<b>Name of the Project</b>
1	Education Proposal National Technical Textiles Mission (NTTM) Project, Ministry of Textiles (MoT), Government of India (GOI)
2	In Vitro investigation of the role of antiepileptic drug in oxidative ABC cito activity and potential of alpha lipoic acid as antioxidant
3	Design of FinFET architectures for analog/RF and biomedical applications
4	Self nano emulsifying drug delivery systems (SNEDDS) for oral delivery of polypeptide - k for effective management of diabetes mellitus: Design and optimization
5	Strengthening Punjab's Startup Culture: Assessing Awareness, Challenges and Policy Intervention

### **Intellectual Property Rights (IPR) and Knowledge Transfer**

Intellectual Property Rights (IPR) play a crucial role in identifying ground breaking and innovative technologies. The IPR Cell at Lovely Professional University supports students with patent, copyright, and design patent applications and assists in

defending these claims. To date, over 1400+ patents have been published, and 500+ copyrights granted.

Technology transfer involves formally transferring rights from Rensselaer to other parties for the use and commercialization of new discoveries and innovations arising from scientific research. This process typically includes the identification, protection, and licensing of Rensselaer's intellectual property. In the 2022-23 session, Lovely Professional University signed over 70+ memorandums of understanding (MOUs) with various universities and industries, providing students with opportunities for advanced studies and industry knowledge.



### Spinoffs:

Lovely Professional University nurtures and supports early stage startup ideas before they formally enter a business incubation program. During initial phase university provide guidance, mentorship, resources and training to develop their business idea into viable and sustainable ventures. The landscape of pre-incubation programs has been evolving rapidly. Compared to previous years, there has been a notable increase in the availability of pre-incubation opportunities, both in terms of the number of programs and the diversity of sectors they cater to. In session 2019-20 no of spinoffs were 4, in 2020-21 no of spinoffs were 10, in 2021-22 no of spinoffs were 40, now in 2022-23 no of spinoffs are 54.

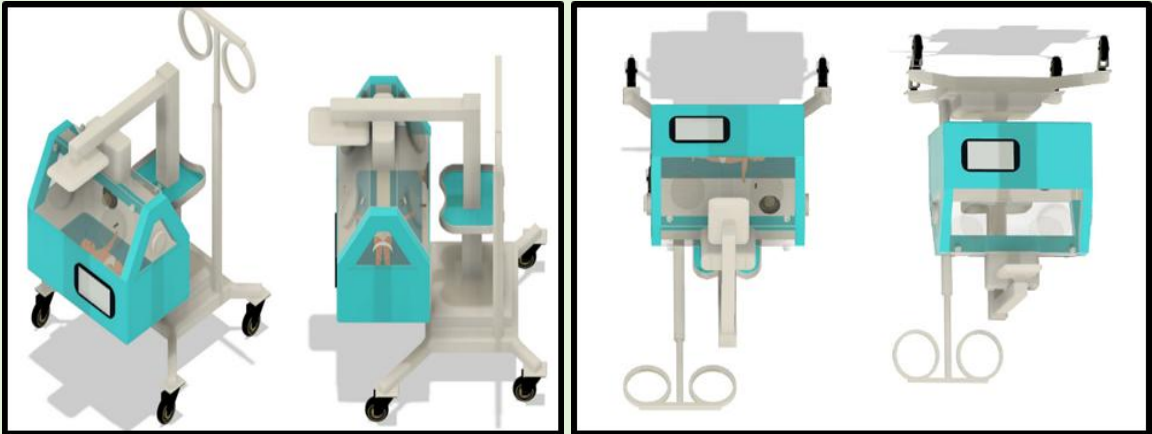
## Campus Engagement Activities to Promote Research and Innovation

Annually, the university organizes a range of awareness programs focused on Research and Innovation, such as National and International Conferences, Seminars, Guest Lectures, and Workshops. During the 2022-23 session, the university hosted several conferences related to SDG 9, few conferences are listed below.

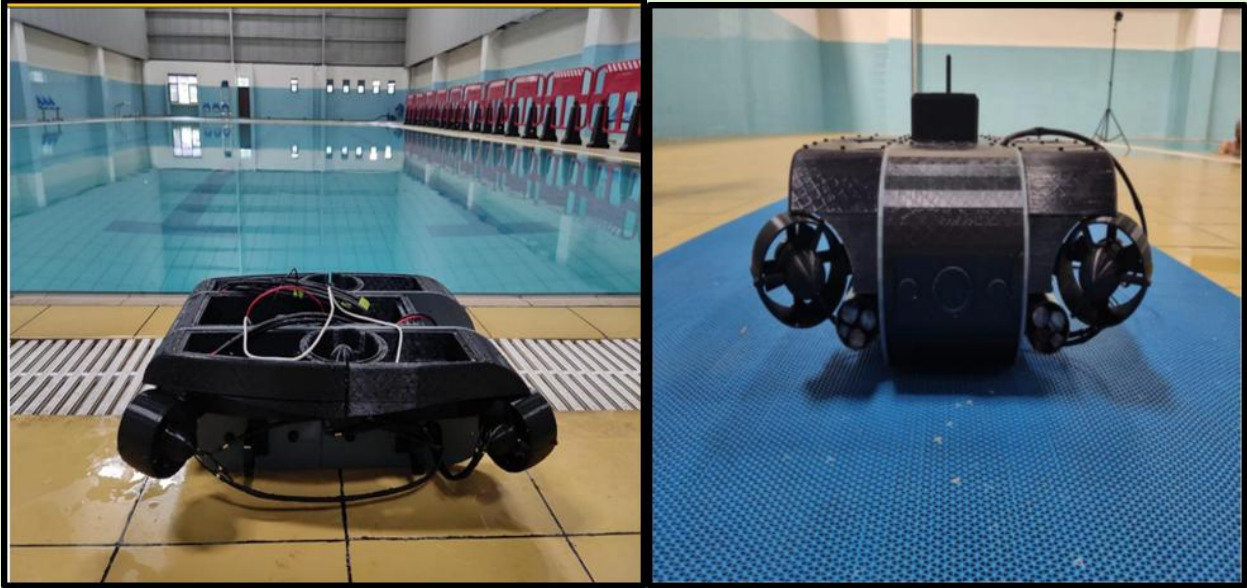
Sr.no	List of Conferences	Link
1	International Conference on Recent Trends in Smart and Sustainable Agriculture for Food and Nutritional Security	<a href="#">click here</a>
2	International Conference on Recent Advances in Energy and Materials for Sustainable Development	<a href="#">click here</a>
3	5th International Conference on Intelligent Circuits and Systems	<a href="#">click here</a>
4	International Conference on Recent Trends in Biomedical Sciences (RTBS-2023)	<a href="#">click here</a>
5	International Conference on Synthetic and Pharmaceutical Chemistry	<a href="#">click here</a>
6	International Conference on Networks, Intelligence and Computing	<a href="#">click here</a>
7	International Conference on Advances In Material Science and Technology (ICAMST 2022)	<a href="#">click here</a>

8	International Conference of Bioengineering and Biosciences-2022 (ICBB-2022)	<a href="#">click here</a>
9	First International Conference on Innovation and Intellectual Property Rights	<a href="#">click here</a>
10	3rd International Conference on Functional Materials, Manufacturing and Performances (ICFMMP)	<a href="#">click here</a>

University provides an opportunity for the students to unravel their Innovation and transform them into a successful business idea. Therefore many LPU students are working together for doing some innovations in terms of making new components that help society. There are some prototypes made by students in support with faculty are represented below:



NEONURTURE- A neonatal physiotherapy and incubation system



OCEANUS: An Autonomous Underwater repair bot

### **Conclusion**

LPU's processes and policies align with SDG9 by fostering innovation among students and academics to address societal and industrial challenges with a strong emphasis on sustainability. LPU is committed to cultivating a sustainable culture of innovation and technology transfer, transforming ideas from conception to market-ready solutions. This approach has led to the identification of essential needs and the development of cost-effective and practical products that benefit society.





# SDG 10 – REDUCED INEQUALITIES

**Introduction:** The University's dedication to community engagement aligns with its commitment to advancing the Sustainable Development Goals (SDGs), with a specific emphasis on SDG 10, which seeks to reduce inequalities both within and between countries. Acknowledging the transformative power of education in achieving the SDG 10 target by 2029, the institution actively participates in numerous initiatives designed to impact all sectors of society. This report is organized as follows:

## **Academic Initiatives:**

Lovely Professional University (LPU) currently offers an extensive range of over 150 programs across more than 40 disciplines, catering to students at the diploma, undergraduate, graduate, and doctoral levels. LPU prides itself on its team of highly qualified educators who carefully tailor curricula to meet the evolving needs of various industries. In addition to providing scholarships for Indian students, the university also attracts numerous outstanding international students from around the world, ensuring equitable access to quality education for all. LPU goes a step further by offering international students the opportunity to work on campus, and multinational corporations actively recruit students from diverse countries. Approximately 8% of LPU's student body comes from low- and middle-income countries, reflecting its commitment to inclusivity and diversity.

LPU is firmly dedicated to instilling in its students an understanding of the United Nations' Sustainable Development Goals (SDGs). The process of curriculum development at LPU involves aligning courses across various programs with the SDGs, particularly focusing on inclusivity, equity, and fostering a lifelong learning culture. The university ensures that the highest standards of education are met while crafting and delivering these courses. Every course, whether in undergraduate (UG) or postgraduate (PG) programs, is designed with a clear focus on addressing specific sustainability challenges. In alignment with Sustainable

Development Goal 10, which aims to reduce inequalities, LPU offers a range of courses that directly address issues of inequality and promote social justice.

### **Admission Policy:**

Lovely Professional University (LPU) maintains a transparent, non-discriminatory admissions policy that ensures equal opportunities for all applicants. Regardless of background, race, religion, gender, or other factors, LPU fosters a culture of diversity and inclusivity. The university is committed to a merit-based admissions process, promoting fairness and transparency, and providing every individual the chance to pursue their educational goals on an equal footing. To further support students, LPU offers a Scholarship Scheme aimed at unlocking the potential of talented individuals facing financial challenges, with scholarships available across all programs from diploma to Ph.D. levels. Additionally, LPU provides financial aid to individuals from underprivileged groups, with further details provided below.

- **Need based Scholarships:** With a view to facilitate access to higher education to persons who belong to specific category and whose annual family income is below a certain limit, LPU offers a financial aid.
- **Financial aid to Orphans:** With a view to facilitate access to higher education to orphans, LPU offers a financial aid. The benefits, process of applications submission, and selection of applications pertaining to scheme are detailed below:
  - Full Programme fee waiver
  - Examination fee waiver

Seats: Total of 20 seats are offered under the scheme

- **Persons with Certain Disabilities:** With a view to facilitate access to Higher Education to the persons with benchmark disability and Locomotor disability caused by Spinal Cord Injury, LPU offers a financial aid. The benefits, process of applications submission, and selection of applications pertaining to scheme are detailed below:
  - Full Programme fee waiver
  - Examination fee waiver

Residential Facility: Applicants will have to pay for availing any residential facilities i.e., stay, food, and laundry etc. food and laundry charges for the attendant also.

Applicant referred by SCIA, Jalandhar will be given additional benefits of residential facilities –free stay in hostel dormitory (residential facility in the lowest fee category).

The attendant may be allowed to stay in the same hostel room without paying additional for residential fees

Seats: Total of 25 seats are offered under the scheme

**International Students:** LPU hosts over 3,100 students from developing countries and offers LPU Scholarships to top-performing international students, covering their tuition fees for the entire duration of their program. Every year, the university provides scholarships of varying amounts to hundreds of exceptional international students from around the world. This year, a significant number of students from countries like Bangladesh, Sudan, Nepal, Sri Lanka, Bhutan, Yemen, Kenya, Ghana, Maldives, Malawi, and many others have enrolled at the university.



Diversity at University

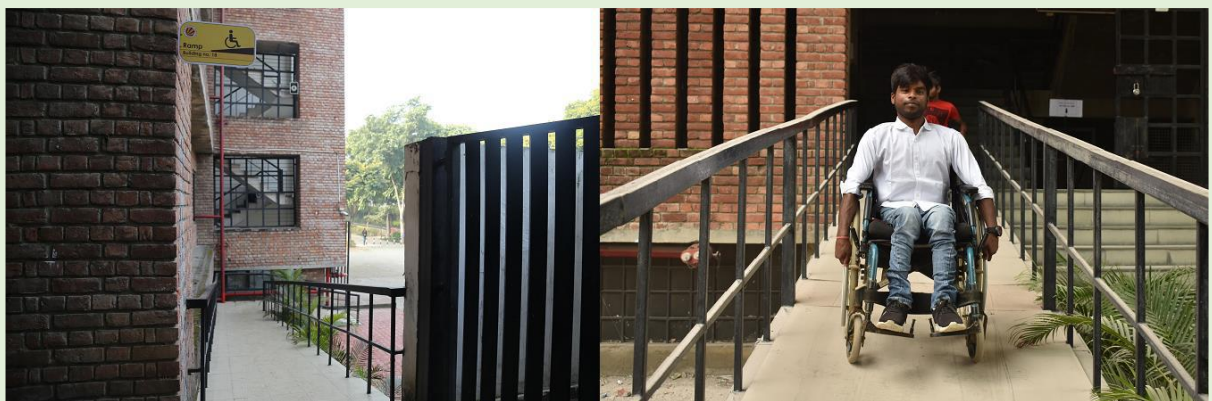
### **Disability support Office:**

Disability Support Office assists the individuals with disability to have a comfortable and safe environment inside the University campus. The office provides help to the individuals about any academic, residential and infrastructure related trouble they face in the campus. In addition, the department coordinates with every Academic

and Residential block of the University through a dedicated Administrative Officer to take care of the requirements of the individuals with disabilities.

**The DSO provides:**

- Services to faculty, staff and students with disabilities.
- Accommodation advice and resources for different departments.
- Assisting equipment such as wheelchairs, canes and scribes for examination etc.
- Accommodations for members of the public attending University events.
- Support to disable student to access throughout the University.
- Mentoring and support to people with specially disabled.



Ramps and Railings for disabled persons

- **Campus Facilities and Sports**

LPU provides all students with access to world-class sports facilities so they can develop their athletic prowess. LPU provides all tuition costs, free accommodation, and boarding, as well as funding for the purchase of sporting equipment, competition entrance fees, and coaching sessions to its gifted athletes. All students, including those with impairments, are inspired and given the opportunity to succeed in athletics by the university's top-notch academic and athletic facilities. 14 LPU students participated in recently held Paralympics 2024 in Paris



LPU students won medals at Paris Paralympic 2024

- **Campus Engagement Activities**

LPU goes beyond academics and sports by hosting a wide range of campus engagement activities. These activities not only showcase the talents of students but also promote inclusivity and empowerment. For instance, the university Each year, LPU takes the initiative to host a conference for individuals with disabilities. VISTAAR 2023, the 6th Spinal Cord Injury Rehabilitation Conference & Wheelchair Games, was a notable event organized by LPU's NSS in collaboration with the Spinal Cord Injury Association of India (SCIA). Held at the Shanti Devi Mittal Auditorium from March 30 to 31, 2023, the conference drew participants from all over India.

- **Outreach Activities**

Lovely Professional University (LPU) actively promotes inclusivity and empowerment through diverse initiatives. In collaboration with the Louis Braille Welfare Association, LPU-NSS hosted a national competition for the visually impaired, enhancing opportunities in music, sports, and academics. LPU's NSS program also launched "Golden Era," an elderly care initiative providing physiotherapy and engaging activities. The university's POSHA workshops and gender sensitization street theatre raised awareness on workplace equality, sexual harassment prevention, and women's rights. A dedicated Women Empowerment event highlighted skill development and leadership for women,

complemented by “Nari: Her Right, Her Pride,” focusing on menstrual health in underserved areas. LPU celebrated International Women’s Day 2023, featuring activist Laxmi Narayan Tripathi and women entrepreneurs, underscoring digital empowerment. Successes in sports included LPU’s women’s American Football team winning the AIU Championship and hosting a groundbreaking Transgender Cricket Tournament, both reflecting LPU’s commitment to gender equality and inclusivity in athletics.



# SDG 11 – SUSTAINABLE AND COMUNITIES

**Introduction:** LPU recognizes its responsibility towards every Indian citizen, acknowledging the ongoing global population growth. To accommodate this, it is crucial to develop modern, sustainable cities. To ensure survival and prosperity for all, we must implement intelligent urban planning that fosters safe, affordable, and resilient cities with green and culturally enriching living environments. As an integral part of a developing nation, LPU has been actively involved in promoting the preservation of the country's culture since its inception. The university focuses on providing quality education through its curriculum by providing healthy learning about to build modern, sustainable cities for preserving the culture of the country. This educational initiative is designed to equip students with the knowledge required to contribute to the mission of creating sustainable cities & communities. Through knowledge exchange and practical projects, students are encouraged to work towards improving the "livability" of regional cities.

## HOW LPU IS CONTRIBUTING

LPU provides educational programs in Environmental Science that include industry exposure, fieldwork, and practical experience. These programs emphasize addressing the challenges of balancing economic growth with environmental and ecological limitations. LPU's campus, with its unique green spaces, combined with the rich agricultural and forested surroundings in the region, serves as a dynamic and varied learning environment for students

## Research on sustainable cities and communities

LPU is doing well in research on sustainable cities. Their research is good quality, has a big impact, and they published 195 papers and patent 56 on SDG 11 in 2022-2023. To do even better, they should work together with other experts, talk to people in the community, share their findings, and use data to help them understand problems.

## **Academic Initiatives**

The Faculty of Environment science working on Sustainable Development programs, which include both in- classroom and online courses. This recently revamped program is designed to be in line with the UN 2030 focus towards Sustainable Development Goals. It highlights the importance of taking action on a global scale and emphasizes the requirement for new governance models, fostering collaboration among various stakeholders at both international and local levels to achieve these Goals. In addition, LPU provides a range of programs in Urban Planning and Architecture, spanning from Diploma to Doctoral levels. These programs aim to train future city planners and architects who play a pivotal role in shaping sustainable and efficient urban systems for the nation. The faculty is highly qualified and engaged in producing research articles focusing on sustainability.

## **Support of Arts and Heritage**



LPU's museum is a campus-wide art gallery filled with stunning masterpieces.



## **LPU's Unwavering Commitment to SDG's: Advancing with Purpose and Determination alongside the World**

LPU, as the coordinating body for promoting, integrating, and aligning activities toward SDG achievement, upholds an ambitious commitment. The university's strategic vision and action targets are pivotal for shaping a better future. LPU's primary mission is to ensure that the UN's Sustainable Development Goals permeate every facet of its initiatives, adhering to the UN's defined parameters to attain the desired outcomes for a better world. In conclusion, Lovely Professional University (LPU) distinguishes itself by its unwavering commitment to fostering creativity and preserving cultural heritage through its exceptional creative departments, particularly Fine Arts and Performing Arts.

### **Art and Book Collections**

Furthermore, LPU's dedication to the arts and culture extends beyond its immediate campus, as it recognizes the significance of books as precious sources of knowledge. The Special Collections and Rare Books evident LPU's preserving International heritage. LPU houses a large library totaling up to thirteen discipline libraries to our academic network with some special collections and rare books. LPU goes above and beyond in its commitment to knowledge dissemination and community engagement by providing free access to its public library. This inclusive approach ensures that all visitors, whether they are part of the university community or not, have the opportunity to benefit from the vast resources housed in the library. For those wishing to utilize a public library workstation, the process is straightforward - a simple request for a guest log-in at the main desks grants access.

### **Accessibility**

The open spaces and green spaces are accessible to the general public. It is in touch with major National Highway NH44 and National Highway NH 1 including major cities of Punjab state and has easy access to public transportation. Holidays frequently attract a large number of citizens or visitors who come to enjoy flowers, go for walks, practice, or visit.

**Public Access to Buildings:** Uni Health Centre, University Auditoriums, University Mall, University Grounds, Emergency services for the community free of cost

**Public Access to Libraries:** Provide public access to libraries including books and publications. Synonymous with the abode of knowledge, Central Library and all other 13 school libraries at Lovely Professional University are stocked with more than 60 Lac of books including E-books and thousands of Print journals to ignite the wisdom growth of the students. Library is frequently updated with new books and other useful study material for students from diverse streams. In the quest to make the Library management immensely convenient for the users, Lovely Professional University Library provides vital support complementing academic activities to students, researchers and staff. It provides access to the world of information - whether online, multimedia or in print. In order to effectively capitalize on the opportunities provided by radical changes in technology, pedagogy and research practices, the libraries operate in a number of profound ways and work in partnership with faculty members to enhance student's research skill development, encompassing both information literacy and learning skills. The libraries now do provide effective research and learning environments with a user-focused approach which is the hallmark of SU library. Currently, the libraries allows admission to all the students, faculties and university staff of Lovely Professional University, but entry to the library can be availed by public in special circumstances and with permission from the designated authorities.



Central Library Book's, Lovely Professional University

## Public Access to Museums

Provide public access to museums, exhibition spaces or galleries, or works of art and artefacts. Being an international university, Lovely Professional university is a mix of the best of the whole world where cultures, traditions, languages are all celebrated and promoted. Lovely Professional University keeps on organizing events promoting art and culture through various workshops, competitions and exhibitions which are open for public viewing, while allowing students from other universities to be a part of these events as well.



Exhibition to showcase Faculty artisan's work

## Public access to green spaces

Provide free public access to open spaces and green spaces. There is no restriction to access open and green spaces within the campus premise once one has entered in the campus. Typically, to enter the university premises, visitors, including students, faculty, staff, and guests, are required to follow the established protocols and procedures for access. Visitors are usually required to register at the entrance gate or security checkpoint. They may be asked to provide valid identification and state the purpose of their visit. Students and faculty members are issued identification cards that grant them entry to the premises. Aerial view Lovely Professional University.



Celebration Yoga Day in University Lawn

### **Celebrating Cultural Diversity and Sustainable Cities at LPU**

LPU's multi-state cultural festival is more than just a celebration of India's rich heritage; it's also a tangible step towards achieving SDG 11: Sustainable Cities and Communities. By bringing together people from different regions and cultivating a sense of inclusivity, the festival promotes social cohesion and cultural understanding, essential elements for building sustainable cities. The event's focus on traditional arts and crafts also highlights the importance of preserving cultural heritage, which contributes to the unique character and identity of cities. Moreover, the festival's emphasis on sustainable practices, such as using eco-friendly materials and reducing waste, demonstrates LPU's commitment to creating a sustainable campus environment.



Celebrating Multi state cultural Festival in campus

### **LPU's Indoor & Outdoor Sports facilities for students, staff & Public to explore environmental games**

Being an integral part of the nation, students, Staff & Public have access to all the Sports and recreational facilities on campus. There is adequate infrastructure and expertise to promote interest in sports and cultural activities.

### **Outdoor sports facilities and Indoor sports facilities.**



Outdoor Sports facilities for students and staff & Public



Indoor Sports facilities for students, staff & Public

### **LPU has an Active Various Students Club Working on Various Factors for Social & Individual Growth:**

The Division of student welfare at LPU hosts frequent events that include theatre, screenings, symposiums and more. During the 2021 calendar year they contributed to over 100 performances and activities which range from an Indigenous Film Festival, Gaming festival zone, Sound Seminar, International Go Kart Championships and many more events competes and performs at various annual competitions at each of year of convocation ceremonies annually.

### **Art and Heritage Contribution**

The University regularly hosts many inter and intra college fests and cultural events. While the intra college fests intend to explore the talents of the students within a particular school, the-inter college fests are organised inviting participation from all over India. Along with discovering and boosting various talents, these fests also implant the skills of event organisation and management in the students and help them develop qualities of effective leadership, team spirit and sportsmanship. Dance Club, Dramatic Club, Fashion Club.



Punjabi Cultural Folk Dance

### **Record and Preserve Cultural Heritage**

Lovely Professional University has various initiatives that contribute to the recording and preservation of cultural heritage through events and research endeavors. Lovely Professional University organizes cultural events and festivals that celebrate the diversity and richness of various cultures. These events often include performances, exhibitions, and workshops that highlight traditional art forms, music, dance, and literature. The university supports research projects focused on the documentation and preservation of cultural heritage. These projects involve studying local traditions, languages, rituals and historical sites. By conducting in-depth research, the university also contributes to the creation of comprehensive records in terms of research papers, publications and books.



Radio Talk by student of Lovely Professional University

### **Expenditure on cultural fests, sports, arts and heritage**

Lovely Professional University provides various funding's to support various events like sports, art and heritage activities. Sports bring people together and creates a sense of community as individuals come together to support and celebrate the life events together and further initiatives that contribute to the preservation and upliftment of art and heritage.



University expenditure on Art and Heritage



## Sustainable Practices

The University has a focused approach for sustainable green practices on the campus, geared towards implementing environmentally conscious activities, having spin-off short- and long-term financial benefits. The University has adopted a conscious policy to introduce and evolve green practices to Minimize soil, air, water and noise pollution through eco-friendly practices of natural resource conservation and to reduce human carbon footprints and etc.

## Sustainable practices targets

Lovely Professional University, in line with global sustainability goals and to promote eco-friendly commuting options, has set some goals and targets through implementing certain directives, promotions, enhanced infrastructure, community participation etc. Following is the list of targets that Lovely Professional University aims to achieve in the near future enhancing Infrastructure for Non-Motorized Transport: In addition to the already existing pedestrian walkways and pedestrian friendly traffic in the campus, the university is planning to add dedicated bike lanes and secure parking facilities for bicycles and scooters to encourage more students and faculty to opt for non-motorized transportation and etc.



LPU EV On campus E-kart at Lovely Professional University

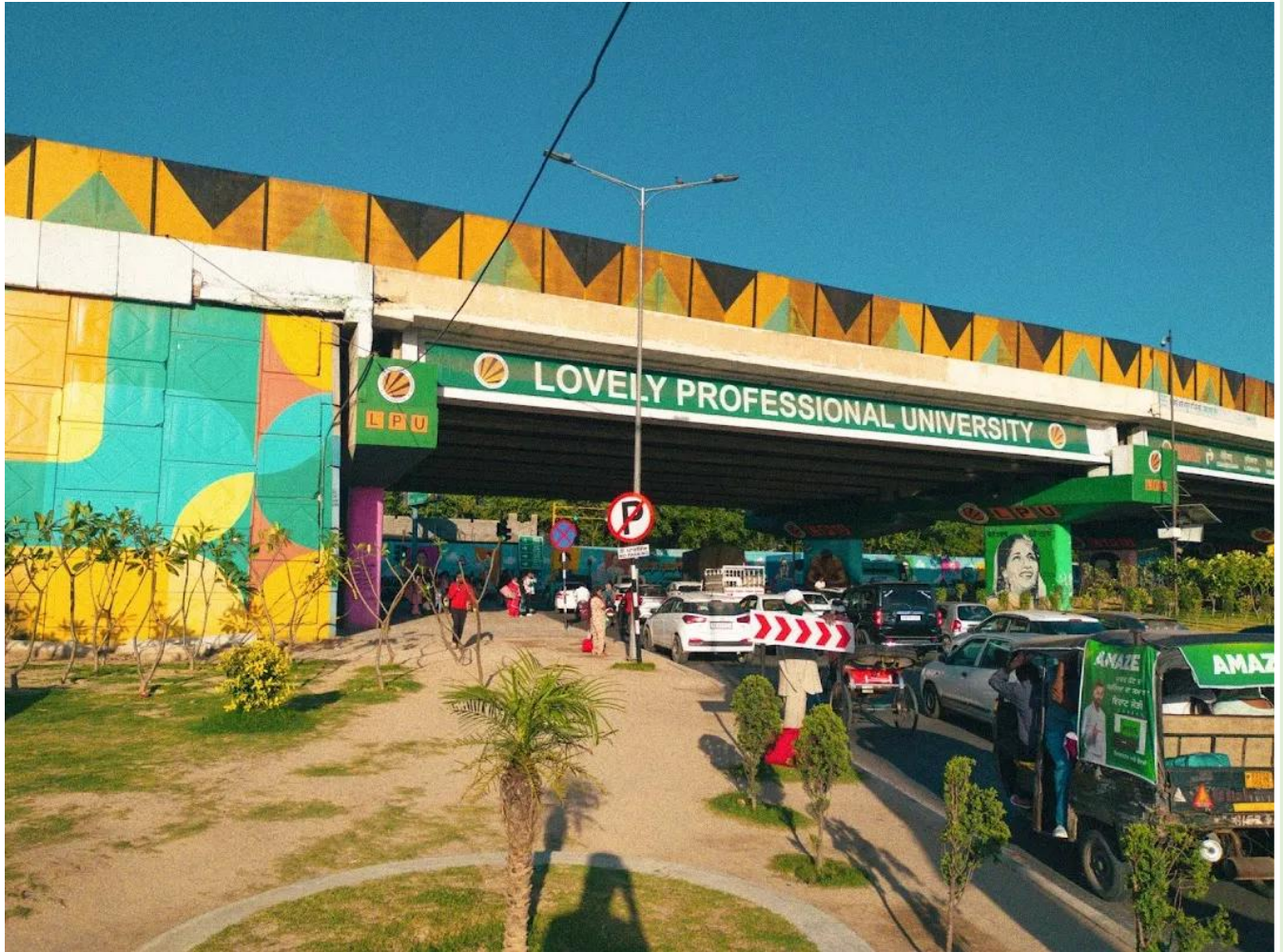
## **Promote sustainable commuting**

Lovely Professional University demonstrates its commitment to sustainability and encourages its students, faculty, and staff to adopt more eco-friendly commuting practices, thereby contributing to a greener and more environmentally conscious campus community. The university has a dedicated shuttle service for students, faculty and staff thereby reducing the overall carbon footprint because of commuting. Following are the details of the University shuttle services and the number of beneficiaries for the same.

- **Allow remote working: Promote or allow telecommuting or remote working for employees as a matter of policy or standard practice, or offer a condensed working week to reduce employee commuting.**
- **Affordable housing for employees: Provide affordable housing for employees.**
- **Affordable housing for students: Provide affordable housing for students**
- **Local authority collaboration regarding planning and development: Work with local authorities to address planning issues and development, including ensuring that local residents are able to access affordable housing.**
- **Pedestrian priority on campus.**

## **Local authority collaboration regarding planning and development**

The university's Planning and Development Cell actively maintains a section of NH44 near the university, ensuring it is adorned with beautiful landscapes, greenery, cleanliness, and safe riding signage. LPU continuously works alongside local and national highway authorities through various community-driven initiatives. In addition, the university runs a Community Connect Programme, where students and faculty engage in meaningful interactions with local communities.



Planning and Investment on Urban Development by the University: Green and Clean Maintenance of NH44

### **Planning development - new build standards**

Lovely Professional University has made substantial strides in its commitment to sustainable development by constructing new buildings that adhere to rigorous environmental standards. As a result of sustainable practices here, LPU became the first campus in India to be awarded a five-star rating with Green Rating LPU conferred with Government of India's Green Champion Award We are proud that Lovely Professional University has been declared as recipient of 'One District, One Green Champion' Award by Mahatma Gandhi National Council of Rural Education (MGNCRE) LPU with a comprehensive focus on minimizing its ecological footprint and fostering sustainable practices, the university has incorporated several key strategies and principles into its construction processes.

## Building on brownfield sites

LPU has taken a proactive approach to community development by acquiring brownfield buildings, which were previously environmental concerns due to a lack of vegetation and potential pollutants. Through its Architecture and Planning Department, the university is transforming these pre-existing structures into sustainable developments. By reconstructing on previously undeveloped lands, LPU is not only improving these brownfield areas but also expanding its campus with eco-friendly designs. This initiative strengthens LPU's connection with the local community, creating job opportunities and promoting sustainable land use. Additionally, the renovation of these structures provides hands-on training for students in civil and related fields, aligning with LPU's goal of fostering regional development and environmental sustainability. LPU's commitment to redeveloping brownfields supports both the growth of the campus and the overall well-being of the surrounding community.



LPU Leads Brownfield Development: Transforming Environmental Concerns into Sustainable Educational buildings development



# SDG 12 – RESPONSIBLE CONSUMPTION AND PRODUCTION

**Introduction:** Lovely Professional University is dedicated to a sustainable future through responsible consumption and production, aligning with SDG 12. LPU integrates sustainability into its curriculum, promotes ethical sourcing, and supports local suppliers with fair labor practices. The university actively engages in waste reduction, recycling, and discourages single-use plastics. Initiatives like wastewater reuse for irrigation further demonstrate LPU's commitment to minimizing environmental impact. Recognized by India's Ministry of HRD as one of the top ten 'Swachh'(Hygienic) universities, LPU encourages sustainable practices through student awareness programs, guest lectures, and workshops, all aimed at building an eco-conscious campus community.

**Research on responsible consumption and production:** The LPU integrated sustainability across disciplines in 2022-23, equipping students, scholars, and researchers to address pressing environmental challenges. Aligned with SDG 12, it produced over 226 research publications and 60 patents, showcasing innovations like "green paints" from plant waste, biofuel from rice straw, and numerous other sustainable solutions. Through "Sponsored Projects" and varied research initiatives, the university promoted responsible consumption and production, supporting a more sustainable future.

**Ethical sourcing policy:** The university had implemented an ethical sourcing policy focused on sustainability and responsibility in its procurement practices. This policy outlined guidelines for sourcing food and supplies, prioritizing products that were environmentally friendly and ethically produced. LPU was committed to supporting local sustainable producers and promoting ethical awareness within the campus community.

**Policy waste disposal – hazardous materials:** LPU had implemented strict guidelines to manage and dispose of hazardous materials effectively. These policies ensured that all potentially dangerous waste, whether chemical, biological, or electronic, was handled safely and disposed of in a way that minimized harm to both the environment and the campus community. The established protocols focused on proper storage, containment, and disposal to comply with

environmental and safety regulations, safeguarding both human health and natural ecosystems. This comprehensive approach underscored LPU's commitment to maintaining a safe and sustainable campus environment.

**Policy waste disposal - landfill policy:** LPU had established a comprehensive landfill policy to effectively manage waste disposal. This policy emphasized the importance of measuring the amount of waste diverted from landfills and the amount that was recycled. By tracking these figures, the university aimed to increase its environmental positive impact and enhance its sustainability efforts. This initiative reflected LPU's commitment to responsible waste management and promoting recycling practices within the campus community.

**Policy for minimisation of plastic use:** Lovely Professional University established an extensive policy aimed at reducing plastic usage throughout its campus. This policy primarily targeted the ban of single-use plastics by promoting alternative solutions and encouraging the adoption of reusable products. Furthermore, the university committed to raising awareness among students and staff about the environmental consequences of plastic waste and actively collaborated with suppliers and vendors to eliminate the use of plastic packaging. This initiative reflected LPU's dedication to sustainability and responsible resource management, ultimately contributing to a healthier environment for future generations.

**Policy for minimisation of disposable items:** The policy for minimizing the use of disposable items on campus was implemented to promote environmental sustainability. This initiative focused on reducing waste through various strategies, such as encouraging the use of reusable products and enhancing recycling efforts on campus. In line with this policy, the university actively promoted awareness among students and staff about the negative impacts of disposable items. Educational campaigns were conducted to highlight the importance of sustainability and to motivate the university community to adopt eco-friendly practices. LPU committed to providing practical alternatives, such as reusable containers, to further support the ban of single-use plastic products. The university was dedicated to cultivating a sustainable culture that aimed to significantly reduce its environmental impact and encourage responsible consumption among community members.

**Disposable policy - extensions to services:** The university had established a disposable policy that extended to outsourced services and the supply chain. This policy ensured that all suppliers and service providers adhered to the university's sustainability standards, particularly regarding the reduction of waste and the

responsible disposal of materials. LPU emphasized collaboration with external partners to implement best practices in waste management and promote environmentally friendly operations. By extending these policies to the supply chain, LPU reinforced its commitment to sustainability and responsible resource management across all aspects of university operations.

**Minimisation Policies extended to suppliers:** To ensure sustainability throughout its operations, LPU had implemented minimization policies that extended to its suppliers. This comprehensive approach involved working closely with vendors providing equipment, stationery, and construction services to promote environmentally friendly materials and practices. By engaging suppliers in its sustainability efforts, LPU demonstrated a commitment to reducing its environmental impact and promoting responsible consumption across its entire supply chain. This initiative reflected the university's dedication to creating a sustainable future by influencing the practices of all stakeholders involved in its operations.

**Waste tracking:** LPU had implemented a robust waste tracking system that monitored the waste generated and recycled across its campus. This ongoing effort ensured that LPU could measure its environmental impact, reduce waste, and enhance its recycling practices, contributing to a more sustainable campus environment. Through continuous tracking and monitoring, the university aimed to further minimize waste generation while improving its recycling rates. The university ensured that all the waste produced was recycled to make the campus sustainable in nature. In this regard, the entire wastewater was recycled in a 5 MLD wastewater treatment plant. Moreover, the university ensured 100% recyclability of any type of waste produced on campus, such as extra food, E-waste, metal waste, plastic waste, medical waste, etc.

**Operational measures:** LPU prioritized sustainability through its Sustainable Procurement Policy, which focused on eco-friendly, socially responsible purchasing practices to reduce environmental impact across the supply chain. The university promoted recycling, reusable products, and investigated renewable energy sources for its facilities. LPU's green campus supported SDG 12 by generating renewable energy from power plants and using solar panels to power electric vehicles. The campus featured solar power, solar street lights, LED lights, and green buildings, all of which contributed to reducing the carbon footprint, saving energy, and lowering costs. These efforts demonstrated LPU's commitment to sustainable consumption and production practices, ensuring a greener future for all.



LPU promotes sustainability through solar rooftops and eco-friendly transport solutions.

LPU promoted sustainability by encouraging the resale of second-hand products, such as furniture, through its University Management System platform. This initiative supported SDG 12 by focusing on waste reduction, recycling, and reuse. The university emphasized environmentally friendly practices, allowing students and staff to buy and sell used items, contributing to a circular economy. LPU's efforts helped reduce waste generation and foster sustainable development, ensuring a better environment for future generations. By integrating these practices, LPU cultivated a culture of sustainability and responsible resource management.

**Minimizing Waste, Maximizing Sustainability:** LPU's Dining Halls and Eateries: LPU promotes sustainable consumption practices at every level of its operations. They emphasize utilizing quality recyclable paper cups during events for serving tea and coffee as well as daily use. These cups are sourced responsibly with a well-organized recycling system in the university for the effective management of waste from used ones. The commitment extends to LPU's dining facilities too. During all meals taken in mess halls or canteens around the campus, students eat their food using long lasting steel plates and spoons as well as paper and clay crockery thus to replace single-use disposables. Such an approach is managed by LPU's Vender Department ensuring there is uniformity in approach across all dining sectors.

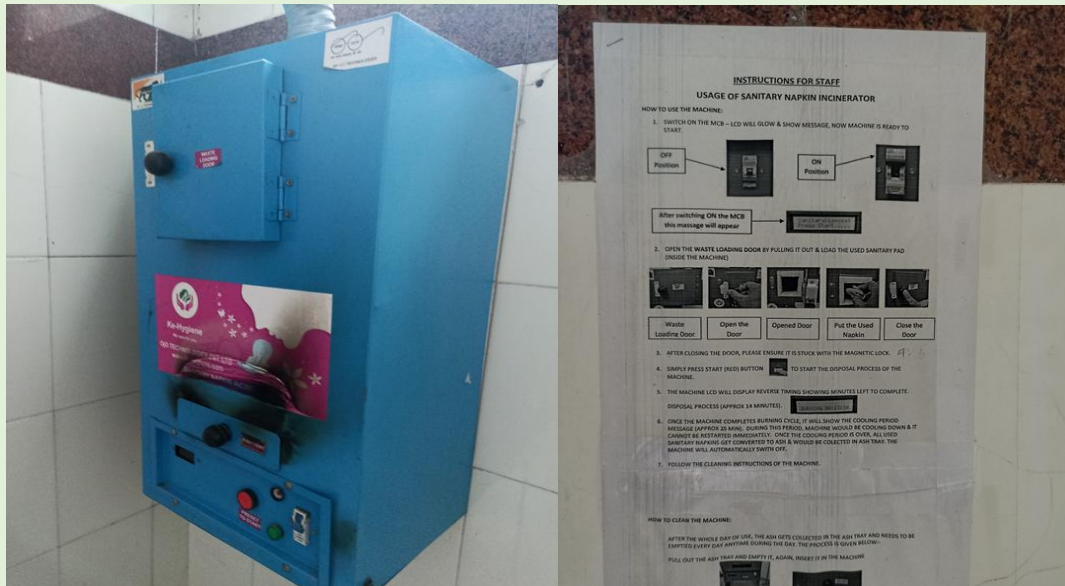




Sustainable paper, wood and clay based recyclable cups and plates, water coolers.

On-campus eateries at LPU prioritized sustainability by offering eco-friendly options like biodegradable wooden spoons and sustainable paper, guided by the Vendor Department. The University Mall also aligned with these practices for consistency. Additionally, LPU installed over 364 chilled water refill stations across campus to ensure convenient access to refreshing water, promoting hydration. These initiatives reflected LPU's commitment to resource conservation and responsible consumption, in alignment with the UN's Sustainable Development Goals.

**Innovative Sanitary Pad Incinerator Promotes Sustainable Campus:** The sanitary pad incinerator installed in the LPU ladies bathroom is an innovative solution that aligns with SDG 12, Responsible Consumption and Production. By safely disposing of used sanitary pads, the incinerator reduces waste and minimizes the need for landfill space, contributing to a more sustainable campus environment.



The sanitary pad incinerator, available in female staff, student and visitor washrooms with features instructions on how to use it safely.

**LPU is committed to sustainable construction practices:** Incorporating eco-friendly materials like interlocking tiles and implementing stringent waste reduction measures, the university minimizes its environmental impact. Interlocking tiles not only enhance campus aesthetics but also provide a durable, low-maintenance surface while preventing soil erosion. Additionally, LPU prioritizes waste reduction through careful planning, material selection, and efficient construction processes. Leftover materials are repurposed or recycled whenever possible until that its stores in storage rooms of LPU, with any remaining waste managed responsibly in accordance with environmental regulations. This comprehensive approach underscores LPU's dedication to building a greener future.

### Approvals From Government Authorities:

- Punjab Pollution Control Board provides specific authorization as per Bio Medical Waste (Management & Handling) Rules, 2076.
- The effluent(s) discharge authorization under Water (Prevention and Control of Pollution) Act, 7974 and Air (Prevention and Control of Pollution) Act, 7987 is also obtained from Punjab Pollution Control Board.
- Authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2076 has been obtained from Punjab Pollution Control Board.

**Practical Crop Production:** University b/w 2018 and 2022, LPU's agricultural yields varied notably. Paddy reached a record 431.5 quintals in 2019, and wheat peaked at 832.85 quintals in 2020. Mustard production was highest in 2018 at 9 quintals, then declined. Other crops, like maize and sugarcane, demonstrated diverse yields, showing increased crop diversification by 2021. According to the report, the total production breakdown for each crop from 2018 to 2022 is as follows: Paddy 893.9 quintals, Mustard 17.66 quintals, Maize 12.32 quintals, Mung 0.46 quintals, Maha Dal 0.5 quintals, Barley 26.6 quintals, Sugarcane 136.8 quintals, Wheat 1904.55 quintals, Arhar 5 quintals. Thus, all the crops had a total annual production of 2998.79 quintals together in these five years. The ongoing cultivation activities in 2023 show LPU's commitment to sustainability and productivity in agriculture.

**Internal System At The Campus:** Before disposing their effluent, all chemicals are neutralized. There is a 5 Megaliters per day (MLD) Sewage Treatment Plant installed and functional in this campus for treatment of waste water as per respective guidelines and treated water is used for irrigation purposes.



5 MLD Sewage treatment plant installed in Campus

**Academic Initiatives:** To impart knowledge about sustainable agricultural methodologies without wasting land or harming soils with non-recyclable dengue pesticides, the university has launched a program called The Rural Agriculture Work Experience. This program not only enhances sustainable agricultural inputs and production techniques but also creates awareness of prevailing agricultural practices. Here are some important ways through which the RAWE program can promote responsible consumption and production. Sustainable Agriculture Practices, Efficient resource utilization, Management of Waste and Farmers' other

sources of income are promoted by RAWE. In addition, there is Experience Learning Programmes (ELP) where farmers get exposure on farming techniques.

**Campus/Extension Engagement Activities:** Promote Responsible Consumption via Upcycling "Prabhaav" An inter-hostel competition on sustainability held at LPU, 'Prabhaav,' showed that students are committed to a greener future. It was geared towards creativity and togetherness about waste reduction and upcycling under the supervision of the Division of Youth Affairs and Student Welfare. The contest displayed examples of new ways to consume and produce responsibly with regard to textiles made from waste as it possessed all aspects defined by sustainability goal number twelve.



Prabhaav: Upcycling competition of fashion creations

**Reusing for a Brighter Future in "Joy of Giving" by LPU:** LPU actively commits to SDG's by promoting responsible consumption through initiatives like the "Joy of Giving." Organized by the Division of Residential Services, this program provides clothes, shoes, and essentials to those in need, fostering reuse and reducing new production. It aligns with SDG 12's target to minimize waste generation via recycling and reuse, embodying LPU's social responsibility and dedication to sustainable practices. This initiative fosters environmental awareness and compassion, benefiting both society and the environment.



Joy of Giving: Distributed clothes, footwear etc. to those in need.

**LPU-NSS and IAAS collaborated in order to have a greener campus:** LPU volunteers, including NSS and IAAS, conducted a thorough campus cleanup, supporting SDG 12's target of reducing waste generation by 2030 through prevention, recycling, and reuse. Beyond trash collection, this initiative raised environmental responsibility, encouraging students to maintain cleanliness. Utilizing campus spaces for recreation or gardening promotes sustainability, enhancing LPU's landscape. This collaborative effort fosters habits among future scientists to address environmental challenges, underscoring the importance of preserving life quality and inspiring proactive measures to combat climate change.



LPU's NSS volunteers clean up and collect recyclable waste for a greener future.



One day Programme held on 28-July-2022 Workshop on Hepatitis and its prevention and Biomedical waste management.



# SDG 13 – CLIMATE ACTION

**Introduction:** A significant effort to enhance the capacity in the clean and inexpensive energy field is necessary to utilize the current fossil-fuel-based energy system to the renewable energy-based system. In India, the estimated potential for solar and wind energy is to be at 7,48,990 MW and 6,95,509 MW, respectively. Over the 20th century, energy was dominated by fossil fuels, and the 21st century is a time of transition to renewable energy. To overcome the potential pitfalls of increasing energy supplies and lowering carbon dioxide emissions, a better understanding of energy issues and novel technologies is required. As per the Indian government's vision, Lovely Professional University (LPU) is likewise moving in the same path. In the areas of renewable energy, energy conservation, energy-efficient buildings, and management of sustainability, LPU has devoted a strong commitment and contribution to clean energy deployment, research, academic programs, consultation, and professional training. According to the Bureau of Energy Efficiency, Govt. of India, LPU has a 7.5 MW solar power plant with 33.42kWh/m<sup>2</sup>/year of energy performance index and consumption of a building with a 5-star rating.

**Local Education Programmes:** Lovely Professional University is committed to addressing the urgent challenges of climate change and is actively involved in conducting local education programs on climate action. These programs are designed to empower individuals with the knowledge and tools necessary to contribute to a sustainable and climate-resilient future.

As part of Lovely Professional University's commitment to the Sustainable Development Goals (SDG 13: Climate Action), the university launched an online course titled **Climate Change and Health** in 2023. This free course, open to a global audience, aims to educate participants on the intersection of climate change and public health, emphasizing preparedness, response strategies, and policy formulation. With a focus on the health impacts of climate-related disasters, the course covers both mitigation and adaptation strategies, equipping participants to address public health challenges in the face of climate change.

As part of its ongoing initiatives in sustainability and skill development, Lovely Professional University (LPU) has conducted several impactful short-term courses in 2023. LPU has played a pivotal role in organizing these courses, ensuring that participants are equipped with practical skills essential for addressing global challenges in sustainability, disaster management, and water resource management. Below are the mentioned courses:

**Certification Course on Sustainability Development:** Held from March 21 to May 21, 2022, this course focused on the transition to a green economy, highlighting its potential to generate growth and employment while delivering environmental and social benefits. Participants gained knowledge on sustainable practices, collaboration, and innovation for a green economy.

**Geospatial Perspective on Disaster Management:** Conducted on May 25, 2023, this course explored the use of geospatial technologies, such as GIS and GPS, in disaster management. It emphasized geospatial analysis in disaster response, preparedness, and risk reduction.

**Clean Water Hydraulic Modeler: EPANET:** Delivered on May 26, 2023, this course provided insights into modeling water distribution systems using EPANET software. Participants learned about hydraulic simulations, water quality analysis, and integrating geospatial data for infrastructure design and emergency preparedness.

**Strategic plan for sustainability:** The United Nations Sustainable Development Goals (SDGs) are a set of 17 global goals established in 2015 as part of the 2030 Agenda for Sustainable Development. They are designed to address various global challenges and guide nations and organizations toward a more sustainable, equitable, and prosperous future. These goals represent a global commitment to addressing some of the most pressing challenges facing humanity, including poverty, inequality, climate change, and environmental degradation, to create a more sustainable and equitable world by 2030.

The Strategic Plan of Sustainability in LPU aims to create a roadmap for becoming a sustainable institution that contributes positively to the environment, society, and the economy while providing an exemplary education to its students. The following five pillars outline the goals and outcomes of the university's first Sustainability Plan. These goals were generated collaboratively by stakeholders across campus and garnered the support of the offices responsible for leading the implementation.



**Tie-up with local government and/or local community groups:** Lovely Professional University climate action plan is a comprehensive strategy that outlines the institution's efforts to reduce its environmental impact and mitigate climate change. These plans typically encompass a wide range of actions related to energy efficiency, carbon emissions reduction, sustainable practices, and environmental education. University also engage with stakeholders, including students, faculty, staff, and local communities, to ensure that the plan reflects the values and goals of the institution. Additionally, regular reviews and updates of the plan are shared with Local and regional government/local community groups. Following are the following elements that are shared with the local Government

Lovely Professional University Regularly conducts (yearly basis) Environment and Energy audit with the objective to assess and evaluate environmental and energy performance, identify areas for improvement, and develop strategies for achieving greater sustainability and efficiency. Environmental and energy audits play a crucial role in helping University to identify and address sustainability and efficiency challenges, ultimately contributing to a more environmentally responsible and financially sound operation.

**MoU with Punjab Energy Development Agency (PEDA):** The university is associated with the government of Punjab, India in support of the execution of policies/guidelines on clean energy and energy-efficient technology. An MoU was signed with Punjab Energy Development Agency (PEDA) on 19th December 2019 to undertake research/design/ demonstration/ pilot projects, user trials/ field trials, patenting, propagating knowledge and facilitating skill up-gradation and information dissemination in the field of energy efficiency & energy conservation.

**LPU signs MoU with CSIR-AMPRI, Students to convert 'Waste into Wealth'** Council of Scientific and Industrial Research (CSIR)– Advanced Materials and Processes Research Institute (AMPRI), Bhopal, and Lovely Professional University signed an MoU for bringing ample entrepreneurial opportunities to LPU students. Using AMPRI technologies, students will be educated on how to make wealth from waste. The MoU is to undertake joint 'Research and Academics' pursuits in various areas related to nation-building. It is a boon to students as it will even ensure generation of exportable products from alternative materials

Lovely Professional University is now a signatory to the **Race to Zero for Universities and Colleges** meeting the starting line criteria. The **Race to Zero** is a global campaign to rally leadership and support from businesses, cities, regions,

investors for a healthy, resilient, zero carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth.

It mobilizes a coalition of leading net-zero initiatives, representing 11,309 non-State actors including 8,307 companies, 595 financial institutions, 1,136 cities, 52 states and regions, 1,125 educational institutions and 65 healthcare institutions (as of September 2022). These 'real economy' actors join the largest-ever alliance committed to achieving net zero carbon emissions by 2050 at the latest.

The objective is to build momentum around the shift to a decarbonized economy, where governments must strengthen their contributions to the Paris Agreement.

**Carbon Neutral according to Green Houses Gases Protocols:** University has adopted an eco-friendly bicycle sharing system in 2018 across the campus with the collaboration of Hero Cycles at the campus. LPU has been declared as the country's first 'Bicycle Friendly University due to the successful implementation of the program. Around 600 bicycles are available for the students on 15+ stands across the campus which are shared by nearly 4000 students per day. The objectives for the green campus have been framed for the vision of 2029 aligned with the national and international guidelines. The 2029 Vision of University states that **"By 2029, LPU must transform the university into the green and sustainable campus"**.

To ensure the successful integration of the GHG Protocol, university has dedicated team of experts, supported by external consultants where necessary. This interdisciplinary team leads us to a seamless and efficient implementation process, adhering closely to the GHG Protocol guidelines.

A fundamental step in this process involves conducting a comprehensive assessment of our institution's emission sources. LPU has identified and analyzed emissions from various operational facets, including energy consumption, transportation, waste management, and procurement. Accurate and reliable data form the bedrock of effective carbon management. With utmost precision, university has established baseline emission data to measure our progress accurately and set ambitious reduction targets.

To gauge the full scope of our carbon impact, university has adopted the GHG Protocol's **Scope 1**, **Scope 2**, and are working on the adaptation of **Scope 3** emissions categories. This holistic approach encompasses not only direct emissions from our operations (**Scope 1**) and purchased energy (Scope 2) but also indirect emissions from our value chain activities (**Scope 3**). Embracing all three scopes

enabled university to identify and mitigate emissions across our entire operational spectrum.

By incorporating **Scope 3** emissions, the university aims to better understand the emissions embedded in our supply chain. This insight will facilitate the exploration of opportunities for supply chain optimization, sustainable procurement, and fostering partnerships with environmentally responsible vendors.

**Energy Performance Index :**Energy Performance Index (EPI) in kWh per square meter/year is considered for the rating of the buildings for star label by the Bureau of Energy Efficiency Govt. of India. The energy performance index of Lovely Professional University was + 33.42 kWh/m<sup>2</sup>/year. For the composite climate of India if a building is having more than 50% of building area then the building is considered a 5 star rated building if EPI is below 90 kWh/m<sup>2</sup>/year. In the case of LPU, the EPI is much lower than the Indian standard of 5 stars, which itself shows efficient management and operation of the building.

**Outreach activities for cooperative planning for climate change disaster:** Lovely Professional University (LPU) is actively participating in cooperative planning for climate change disasters, which can involve the displacement of people both within a country and across borders. Lovely Professional University is aware of its responsibility towards sustainable development and one of the activities is to create awareness in the students, staff, and community by organizing various workshop, seminars, conferences, and outreach programs. LPU can play a significant role in fostering resilience, reducing displacement, and promoting sustainable solutions in the face of climate change-related challenges.

Lovely Professional University (LPU) continues to contribute significantly to various fields, especially climate action and sustainability. Here are some notable highlights:

1. **Climate Clock Assembly & Display Event (December 2023):** LPU hosted Punjab State's largest Climate Clock Assembly & Display event. Prof. Chetan Singh Solanki, the Solar Man of India, emphasized the urgency of addressing the climate crisis and reducing global temperatures. Two national-level foundations, Energy Swaraj and SwitchON, collaborated with LPU to raise awareness and inspire action against climate change.



2. **Space Tech Achievement:** LPU alumni from the space startup Digantara successfully launched the world's smallest digital space weather instrument onboard PSLV C53. Anirudh Sharma and his team created a groundbreaking commercial space-based weather system, recognized and praised by Prime Minister Narendra Modi.
3. **Student Innovations:**
  - **Bio Air Purifier:** LPU students Ashutosh and Laxmi developed a bio air purifier to combat pollution by converting harmful gases into oxygen without waste.
  - **Radial Drone:** LPU Mechanical students designed a drone capable of detecting hazardous gases with precision, marking a leap forward in airborne gas detection technology.
4. **Faculty Contributions:** Dr. Ravichandran from the School of Mechanical Engineering at LPU has published books on climate change, human health, and environmental science. His works play a vital role in understanding the health impacts of climate change and offer preventive solutions.
5. **Sustainability Initiatives:**
  - LPU students participated in seminars and projects addressing air pollution, stubble burning, and waste management under the framework of SDG13.

Lovely Professional University (LPU) contributes to corporate planning for climate change disasters by leveraging its expertise in agrometeorology and its partnerships with government agencies.

**Agrometeorology Lab:** LPU's agrometeorology lab plays a key role in studying weather patterns, climate conditions, and their impact on agriculture. This is critical for understanding how climate change affects agricultural production and helps predict potential climate disasters like droughts, floods, and storms.

**Space Research Centre:** Lovely Professional University (LPU) assists in corporate planning for climate change disasters through its Space Research Centre by combining satellite data, space technology, and collaborations with government agencies.

**Research Centre on Environment and Climate Science:** Lovely Professional University, Phagwara has a dedicated centre of excellence "Green Engineering" under Research & Development Cell that works on the green technology, alternative technology, green nanotechnology, and computation technologies.

**Future Plan:** The goals for the green campus have been set for the 2029 vision while adhering to both national and international standards. According to the institution's 2029 vision, "by 2029, we must turn the university into a campus that is green and sustainable." Key Performance Indicators (KPIs) to gauge progress toward the "2029" goal

- Reduction the use of conventional energy resources by 30%.
- Identification of high energy consumption zones.
- Follow the national/international standards in building infrastructure and use of electric gadgets.
- Updation of existing infrastructure into the energy-efficient green buildings.
- Enhanced value creation through optimized material flows and waste management.
- Identification of essential and non-essential operation
- Promotion of 100% technology-driven green commuting system within the campus.
- Efficient management and conservation of water resources by 25%.
- Implementation of water recycling techniques including dissolved air flotation, biological treatment, granular activated carbon, softening, disinfection, deionization and filtration etc.

- Training and awareness for the utilization of recyclable materials and waste management
- Biodiversity, habitats and cultural heritage - conservation for current and future generations.
- Collaboration with NGOs, guidelines organisations and research organisations to explore the dynamics, issues and logistics of developing green and sustainable energy sources.
- Sensitization of students, staffs and local community by conducting regular outreach and awareness programs.
- Establishment of CoE in the area of Clean Energy.
- Promotion of collaborative research with industries related to the energy sector to develop more efficient renewable energy production system
- Creepers vertical greening strategies for saving energy and reduction of urban heat island effects.



# SDG 14 – LIFE BELOW WATER

**Introduction:** The water in seas and oceans is crucial for sustaining life on our planet and regulating the global climate system. We depend heavily on these vital resources for food, energy, and water. SDG 14 emphasizes the responsible use of the Earth's oceans and marine resources to safeguard valuable aquatic ecosystems. However, the successful implementation of SDG 14, "Life Below Water," faces several significant challenges, including overfishing, marine pollution, ocean acidification, and climate change. Every major organization has a responsibility to address this degradation. As a leading educational institution, LPU takes proactive measures to mitigate these challenges. Our efforts include a wide range of initiatives, such as research and innovation projects, the use of advanced technologies to reduce and control wastewater generation, conducting awareness campaigns for students, and educating the wider community.

**Research Initiatives:** Research Publications: Lovely Professional University (LPU) has initiated an extensive research agenda to address critical environmental challenges, particularly focusing on aquatic ecosystems. Key research areas include the impact of plastics and microplastics on climate change, sustainable wastewater management, aquaculture advancements, and the remediation of toxic contamination in aquatic habitats. LPU's research also explores the potential of nanotechnology in aquaculture, the effects of antibiotic contamination in rivers, and innovative solutions for microplastic degradation. Through advanced studies in biotechnology, nanomaterials, and microbial applications, LPU aims to contribute to the sustainable management and protection of freshwater and marine ecosystems.

**Funding Project:** Toxic discharge from industrial processes significantly contributes to marine biodiversity and aquatic ecosystem pollution. Lovely Professional University (LPU) has recognized this issue and has actively contributed to mitigating its impact. LPU's efforts are notably directed towards reducing contaminants in the textile industry effluent and developing effective treatment methods. LPU plays a crucial role in safeguarding marine biodiversity and aquatic ecosystems by addressing the pollution issues associated with the textile industry.

**Published books related to Sustainable Development Goal 14:** The faculty at Lovely Professional University (LPU) has made significant contributions to the editorial ship of books related to Sustainable Development Goal 14 (SDG 14) and various aspects of microbial technology and bioengineering. These publications reflect LPU's commitment to advancing knowledge and addressing critical environmental challenges. The books encompass a diverse range of topics, from the intricate polyandrous mating system of Queen Honey Bees, shedding light on their unique reproductive biology, to exploring the vital relationship between microbes and the environment, which is crucial for providing sustainable ecosystem services. Additionally, LPU's faculty delves into the profound impact of changing climates on the human microbiome, providing insights into the intricate interactions between microbes and their hosts.

**Maintaining and Monitoring Aquatic Ecosystem & Their Biodiversity:** LPU boasts a state-of-the-art sewage treatment system that adheres to stringent government regulations. This advanced system includes a Sewage Treatment Plant (STP) with an impressive capacity of 5 MLD (50 lakh liters), which efficiently processes wastewater from dormitories, offices, and other facilities. The treated water is then repurposed for horticulture and agricultural use, while the resulting sludge is utilized as organic fertilizer for gardens. Additionally, a smaller STP with a 10 KLD (10,000 liters) capacity is available at the Main University Playgrounds for handling wastewater from sports fields. The water quality is rigorously monitored by government-approved labs in accordance with the Water (Prevention and Control of Pollution) Act of 1974. Authorized by the Punjab Pollution Control Board, the treated water is deemed safe for irrigation and crop cultivation, ensuring it does not harm existing aquatic ecosystem and its biodiversity or contribute to pollution and eutrophication issues.

**Rain Water Harvesting system at LPU:** Primary source of water is groundwater so no aquatic life is disturbed as water is not being harnessed from surface water bodies. Further ground water is also being used responsibly and being recharged through rain water harvesting. Rain water harvesting is a unique technique to recharge ground water naturally. LPU carries out rain water harvesting in most of its buildings through the most recent available technology and carries out this responsibility in the most positive manner. There are 39 Numbers of reverse bores available for ground water recharge. These rain water harvesting bores at LPU are



certified by the Department of Water Resources, Ministry of Jal Shakti, Government of India for the year 2019 and were checked by accredited labs.

**University Collaboration in efforts to maintain shared aquatic ecosystems:** The university prioritizes fostering global cooperation and engagement, which is reflected in our extensive collaborative initiatives and partnerships network. Our commitment to expanding the horizons of knowledge and promoting international collaboration through Collaborative Research Projects, Faculty and Student Exchange programs, and academic activities such as seminars, workshops, and conferences serves as a platform for exchanging ideas and disseminating knowledge. These resources enable us to advance our initiatives and contribute to global knowledge.

<b>Sr. No .</b>	<b>Name</b>	<b>Duration (years)</b>	<b>Local/ National/ Global</b>	<b>MOU LINK</b>
1	Curtin University, Perth, Western Australia	5	Global	<a href="#"><b><u>Click here</u></b></a>
2	Toshvin Analytical Private Ltd, Mumbai	3	National	<a href="#"><b><u>Click here</u></b></a>
3	ICAR-National Research Centre on Equines, Haryana	5	National	<a href="#"><b><u>Click here</u></b></a>
4	Perkinelmer India Pvt. Ltd, Thane	5	National	<a href="#"><b><u>Click here</u></b></a>
5	Bruker India Scientific Private Limited, Mumbai	5	National	<a href="#"><b><u>Click here</u></b></a>

**University support programs and provide incentives that encourage and maintain good aquatic stewardship practices**

The university encourages its researchers to play an active role in the preservation of aquatic ecosystems and biodiversity. Researchers make valuable contributions through their research publications, patent filings, consultancy solutions, and the dissemination of knowledge and awareness via book publications, among other initiatives aligned with the objectives of Sustainable Development Goal 14. University also offers support and incentives to acknowledge and reward researchers for their efforts in achieving various targets within the United Nations' Sustainable Development Goals.

Contribution to Government Schemes for the Development of Underwater Resources: Faculty members from the university are providing their scientific input in reducing the deterioration of water and sustenance of life underwater at the local level as well. Along the same line, some of the distinctive faculties of the university are involved as a member in implementing the development of fishery resources in Kapurthala district in Punjab under Pradhan Mantri Matsya Sampda Yojna (PMMSY) for the years 2020-21 to 2024-25. Pradhan Mantri Matsya Sampada Yojana is a scheme to bring about Blue Revolution through sustainable and responsible development of the fisheries sector in India and has been approved at a total estimated investment of Rs. 20,050 crores for implementation from FY 2020-21 to FY 2024-25.

Description	Link to Document
LPU faculty involvement in Pradhan Mantri Matsya Sampda Yojna (PMMSY)	<a href="#"><u>Click here</u></a>

The university has meticulously designed its curriculum to align with the imperative need for knowledge and awareness in the preservation of existing aquatic ecosystems. A diverse array of over 60 programs at the university is dedicated to this cause. LPU's programs aimed at sustaining water sources are resolutely dedicated to imparting comprehensive knowledge regarding aquatic ecosystems. Both undergraduate and master's students enthusiastically engage in outreach activities, which serve as a source of inspiration to undertake projects related to aquatic life and other endeavors within this domain. Furthermore, the

university encourages students from other academic institutions to collaborate on these projects, fostering a spirit of collective effort.

### **Guidelines and Framework**

LPU has well-established sustainability and environmental policies aimed at upholding water quality standards and guidelines for water discharges. These policies are designed to protect aquatic ecosystems, wildlife, and human health and welfare. To obtain specific information about a university's water quality standards and guidelines for water discharges [Click here](#) to get more detailed information. Universities often engage in research, education, and community outreach to raise awareness about the impact of land-based pollution on marine ecosystems. University always promotes the development of sustainable practices such as responsible waste disposal and promoting and reducing the use of single-use plastics. The University as a body has a dedicated policy on preventing and reducing marine pollution of all kinds, [Click here](#) to view the details. LPU recognizes the importance of responsible and sustainable practices in sourcing food from aquatic ecosystems. [Click here](#) to view details of the Policy. This Policy is designed to promote the responsible harvesting and consumption of aquatic resources on campus while minimizing negative environmental and social impacts. The university is committed to promoting sustainable practices and strives to educate its community on the importance of responsible food sourcing.

### **Action Plan to Reduce Plastic Waste on Campus**

The university has dedicated guidelines for a green Campus which includes an action plan to reduce plastic waste on campus

#### **University action plan and initiatives to reduce plastic waste on campus**

The framework covers the management of all types of waste (hazardous or non-hazardous) covering biological, chemical, physical, and radiological items that have the potential to cause harm to humans, animals, or the environment. The collection, disposal, and recycling of the waste is being carried out as per the guidelines laid by the respective government bodies. Waste is collected in color-coded bins, green for wet waste and blue for dry recyclable wastes, which housekeeping staff manages appropriately and periodically. The university prohibits the use of plastic

plasticware such as glasses, spoons, etc. on campus. Single-use plastic is banned on campus. Awareness signages are also provided at various locations on the campus.

**Awareness Camp to reduce plastic waste:** Trees Plantation Drive: NSS tree plantation drives aim to promote environmental conservation by planting trees in local communities. Volunteers participate in these activities to raise awareness about the importance of trees in combating climate change, improving air quality, and preserving biodiversity, fostering a greener and more sustainable future for all.



Awareness Camp to reduce Plastic Waste

**Educational programmes on fresh-water ecosystems:** Lovely Professional University offers various educational programs on freshwater ecosystems, water management, and conservation for both local and national communities. LPU has conducted a Programme named “Aqua-Connect: Freshwater Sustainability and Conservation Program” with the objective to educate and empower local and national communities on sustainable water management practices, freshwater conservation, and ecosystem health through practical and theory-based learning.

### **Outreach Activities for Local and National Communities on sustainable management of Aquatic Life**

Sustainable Development Goal 14 aims to conserve and sustainably use the oceans, seas, and marine resources for sustainable development. Lovely Professional

University (LPU) recognizes the importance of protecting marine ecosystems and is committed to promoting awareness and action towards achieving this goal. This report highlights the outreach activities undertaken by LPU to support SDG 14.

**Sutlej River Clean-Up and Awareness Drive:** LPU organized the "Sutlej River Clean-Up and Awareness Drive," aimed at addressing the critical issue of plastic pollution in the Sutlej River. This initiative, conducted by dedicated volunteers from the LPU National Service Scheme (NSS), sought not only to clean the river but also to educate the local community about the importance of maintaining a clean aquatic environment. During the event, enthusiastic students actively participated in removing plastic waste and other debris from the riverbanks. Their collective efforts were complemented by educational sessions where volunteers engaged with residents.



The workshop, "Aqua Guardians: Protecting and Preserving Aquatic Ecosystems," on 12 Dec 2023 brought together members of the local community and college students to raise awareness about sustainable practices for aquatic ecosystem conservation. Led by environmental experts, the workshop educated participants on the importance of water conservation, pollution prevention, and protecting aquatic habitats. A total of 75 participants, including 40 community members and 35 college students, engaged in hands-on activities and discussions on preserving local water bodies for future generations.



# SDG 15 – LIFE ON LAND

**Introduction:** Lovely Professional University (LPU) is deeply committed to the Sustainable Development Goals (SDGs) outlined by the United Nations, with particular emphasis on SDG 15: Life on Land. This goal is centered on protecting, restoring, and promoting the sustainable use of terrestrial ecosystems, managing forests sustainably, combatting desertification, halting land degradation, and preventing biodiversity loss. As a responsible educational institution, LPU recognizes the crucial role it plays in nurturing environmental stewardship among its students, faculty, and the larger community.

## EDUCATIONAL PROGRAMS ON ECOSYSTEMS

### Academic Initiatives

LPU runs various undergraduate and postgraduate programmes in the field of Science, Agriculture, and Technology. Below is a categorization of some of the prominent programmes:

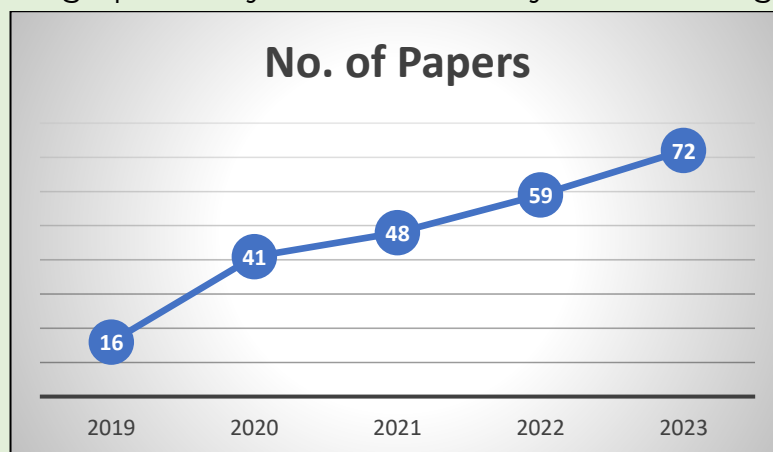
### List of Undergraduate Programs

Sr. No.	Undergraduate Programmes
1	Bachelor of Science (Forensic Science)
2	Bachelor of Science (Honours) (Biotechnology)
3	Bachelor of Science (Honours) (Food Technology)
4	Bachelor of Science (Honours) (Microbiology)
5	Bachelor of Science (Honours) (Zoology)
6	Bachelor of Science (Nutrition and Dietetics)
7	Bachelor of Technology (Biomedical Engineering)
8	Bachelor of Science (Honours) (Agriculture)

Sr. No.	Undergraduate Programmes
9	Bachelor of Technology (Biotechnology)
10	Bachelor of Technology (Food Technology)

## RESEARCH INITIATIVES

Lovely Professional University, a forward-thinking institution, has undertaken a comprehensive approach to advancing the United Nations' Sustainable Development Goal (SDG) 15, "Life on Land," by integrating innovative technological solutions. A key focus is on addressing the issue of pesticide-contaminated soils, which is crucial for preserving terrestrial ecosystems. The university's involvement in soil remediation methods plays a pivotal role in restoring soil health, preventing further land degradation, and promoting the sustainable use of land for agriculture. This aligns with SDG 15's objective of safeguarding and revitalizing life on land. LPU's research is improving upon the years continuously as shown in graph:



Graph showing growth in publishing no. of papers

LPU actively promotes and supports conservation efforts and sustainable land management through advanced agricultural practices, ensuring the long-term socioeconomic and environmental sustainability of land use. The institution also pioneers the monitoring and improvement of soil health with novel techniques that ensure the resilience of land ecosystems, contributing to efforts against desertification and encouraging sustainable land utilization. Some of the research papers mentioned below:

<b>Sr. No.</b>	<b>References</b>
1	Karwasra, Rohtas Kumar, Romaan Nazir, and Devendra Kumar Pandey. "Meta-topolin mediated improved micropropagation, phytochemical profiling, and assessment of genetic fidelity in <i>Chlorophytum borivillianum</i> Sant. et Fernand., an endangered medicinal herb." <i>Industrial Crops and Products</i> 214 (2024): 118463.
2	Bhat, Irshad Ahmad, et al. "Conservation implications of seed germination studies of <i>Aquilegia fragrans</i> Benth.–a native and endangered medicinal plant species of Kashmir Himalaya." <i>South African Journal of Botany</i> 166 (2024): 151-160.
3	Dhiman, Shalini, et al. "Lead Induced Toxicity, Detoxification and Bioremediation." <i>Bioremediation for Sustainable Environmental Cleanup</i> . CRC Press, 2024. 187-206.
4	Nath, Shreya, et al. "Assessment of <i>Boswellia</i> Species Genetic Diversity Using Molecular Markers." <i>Frankincense–Gum Olibanum</i> . Apple Academic Press, 2023. 241-256.
5	Ghosh, Pritha, and Priyanka Lal. "Trends in invasive insect pest research: a bibliometric analysis." <i>International Journal of Tropical Insect Science</i> 43.4 (2023): 1369-1380.

## Patents

LPU holds several published and granted patents, including innovations like an IoT-enabled handheld device for farmers to monitor agricultural fields, an IoT system for floating gardens that tracks soil parameters, and a novel biowaste fertilizer designed for ornamental plant growth in wetland systems. These patents reflect LPU's commitment to sustainability and technological advancement in line with SDG goals. List of some of the granted patents is given below:



### List of the granted patents

Sr. No.	Title of the Granted Patents	Patent No.
1	Novel biowaste fertilizer for growth of ornamental plants for wetland system	AP/P/2022/06984
2	Internet of things enabled switch controlling system and method for plant tissue culture laboratory	AP/P/2022/07028
3	An IOT system for floating gardens to monitor soil parameter	AU2021105002
4	Internet of things enabled handheld device for farmer to monitor agriculture field	IN424747
5	Methods of preparation of green paints and primers using plant waste material	IN425926
6	A process for functionally graded biomaterial	IN423345
7	Flower pot dislocator	IN473804
8	A novel bio-fertilizer to enhance the quality of mung bean and process thereof	IN486523

### **UNIVERSITY'S COLLABORATION WITH THE INTERNATIONAL, NATIONAL AND LOCAL ORGANISATIONS**

Lovely Professional University (LPU) actively engages in collaborations with various local and national organizations to foster educational growth, research innovation, and community development. These partnerships are instrumental in addressing pressing societal challenges and enhancing the quality of education and research. University has collaborated with the local, national and international organizations to maintain shared landecosystems through partnerships which are as follows:

<b><i>International Collaboration</i></b>			
<b>Sr. No.</b>	<b>Name of Organization</b>	<b>Duration</b>	<b>Link to Evidence</b>
1	The Research Institute for Humanity and Nature (RIHN) under the Umbrella of National Institute for the Humanities, Tokyo, Japan	2 Years	<a href="#">Click here</a>

<b><i>National Collaborations</i></b>			
<b>Sr. No.</b>	<b>Name of Organization</b>	<b>Duration</b>	<b>Link to Evidence</b>
1	National Institute of Plant Biotechnology PUSA Campus, New Delhi	3 years	<a href="#">Click here</a>
2	Shram Sadhana Amravati's KVK, Durgapur	5 Years	<a href="#">Click here</a>
3	Perkinelmer India Pvt Ltd, Thane	5 Years	<a href="#">Click here</a>
4	ICAR - National Research Centre for Grapes	3 Years	<a href="#">Click here</a>
5	Trichy Research Institute of Biotechnology	5 Years	<a href="#">Click here</a>

<b><i>Local Collaborations</i></b>			
<b>Sr. No.</b>	<b>Name of Organization</b>	<b>Duration</b>	<b>Link to Evidence</b>
1	ICAR- Indian Institute of Maize Research, Ludhiana.	5 Years	<a href="#">Click here</a>
2	Punjab Remote Sensing Centre, Ludhiana	5 Years	<a href="#">Click here</a>

## **LPU'S COLLABORATION WITH LOCAL COMMUNITIES TO MAINTAIN SHARED LAND ECOSYSTEM**

The **SATHI** project serves as a platform for educating farmers and the broader community on modern, sustainable farming techniques. By introducing new agricultural practices, LPU aims to enhance productivity while ensuring that these practices are environmentally sound and contribute to long-term ecosystem health.



Local water body “creek” cleaning activity by students of LPU

### **Educational Tour to CIPHET, Ludhiana**

An educational tour was organized by the Department of Horticulture, School of Agriculture, LPU on 9th May 2022, with a total of 66 students visiting CIPHET, Ludhiana. The tour aimed to give students a comprehensive understanding of advancements in agricultural technology and food processing. Experts at CIPHET shared valuable insights into their research and innovations in post-harvest technology, highlighting the importance of minimizing food loss while improving

the quality and safety of agricultural products. The presentations covered a wide array of topics, including cutting-edge food processing techniques, storage solutions, and packaging innovations



## MAINTAIN AND EXTEND EXISTING ECOSYSTEM' BIODIVERSITY

**Crop Museum:** A **Crop Museum**, spanning an area of 7.5 acres, has been developed to provide practical knowledge and raise awareness about plant morphology, phenology, and the flowering and fruiting behaviors of various crops.



## Seed Museum

The **Seed Museum** showcases seeds from improved varieties, highlighting their desirable attributes, and aligns with **UN SDG 2: Zero Hunger** and **SDG 15: Life on Land**. This museum serves as a valuable resource for identifying various crop varieties while also emphasizing the significance of quality seeds in promote agriculture.

Seed museum approximately 100 gm of seeds of released varieties each in twenty-five crops namely cereals, millets, pulses, oilseeds and fiber crops have been collected and displayed in seed museum.



## POLY HOUSE/ GREEN HOUSE

The School has created infrastructure in the form of Hi-Tech Poly House, Naturally Ventilated Poly House, Poly Tunnels and Shade Net House which is utilized for conduct of practical's, Hands-on-Training, Experiential Learning, project work, dissertation work, and commercial crop production.



Polyhouse at LPU

## LPU Orchards

**Fruit Orchard:** The area of 40 acres in the university has been developed as orchard where fruits of various climatic zones have been grown. The Fruit Orchard at Lovely Professional University (LPU) serves as a vibrant hub for sustainable agriculture and biodiversity. This initiative showcases a diverse range of fruit-bearing trees, providing students with hands-on experience in horticulture and sustainable farming practices. The orchard not only enhances the campus's green landscape but also promotes environmental awareness and healthy eating habits among the university community. By cultivating various fruits, the orchard plays a crucial role in research, education, and contributing to local food production, fostering a deeper connection between students and the environment.



## Development of equipment to improve biodiversity

### Agrometeorological observatory

The agrometeorology observatory available on agricultural farm is used for providing hands on training on collection of meteorological data related to weather conditions on day-to-day basis. This data is also used research scholar for the

validation of research data and discussion over experimental findings. Equipped with advanced meteorological instruments, the observatory collects and analyzes data on temperature, humidity, rainfall, and wind patterns. This information is invaluable for farmers and researchers, aiding in the development of effective agricultural practices and enhancing crop management strategies. The Agrometeorological Observatory at Lovely Professional University (LPU) serves as a critical resource for understanding the interplay between agriculture and weather conditions.



## AGRO-METEOROLOGICAL OBSERVATORY



Agrometeorological observatory



## Flying Farmer - An Inexpensive Drone

The "Flying Farmer," part of a live project at Lovely Professional University, was developed by 45 students and 5 faculty members to revolutionize pesticide treatment for farmers. This wireless, sensor-equipped drone enables farmers to detect weeds, assess pesticide needs, and perform yield and biomass mapping. It also measures soil nutrient content, reducing crop loss and boosting productivity. The drone can target specific areas for pesticide spraying, preserving up to 85% of pesticide use. With a 25-minute airtime, machine vision algorithms, and infrared sensors, it accurately identifies weed locations and promptly alerts farmers. Moreover, Forbes India featured this innovative project in their "Innovations Built to Help Farmers" coverage.



Students Operating Drone on Agricultural fields



A close view of Drone Operation



# SDG 16 – JUSTICE AND STRONG INSTITUTION

**Introduction:** In alignment with the United Nations Sustainable Development Goals (SDGs), Lovely Professional University (LPU) continues to work diligently towards SDG 16, which emphasizes the promotion of peaceful and inclusive societies, providing access to justice for all, and building accountable, transparent, and inclusive institutions. During the academic year 2022-2023, LPU made substantial strides towards achieving these objectives by nurturing a culture of peace, justice, and integrity both within its campus and the surrounding community.

## ACADEMIC INITIATIVES

Lovely Professional University (LPU) has implemented several academic initiatives aimed at educating students on the various aspects of SDG 16. The university offers a range of programmes and courses that are designed to raise awareness among students about social issues and emphasize the importance of these concerns to various stakeholders. These courses, aligned with SDG 16, are available at both the undergraduate and postgraduate levels. They promote an interdisciplinary approach and integrate sustainability principles across all study programs.

LPU offers following programmes:

Sr. No.	Name of Programme
1	Bachelor of Law
2	Integrated Bachelor of Arts-Bachelor of law (Honours)
3	Integrated Bachelor of Business Administration-Bachelor of law (Honours)
4	Master of Law

## **ESTABLISHMENT OF GURU NANAK DEV JI CHAIR**

Apart from the regular courses, LPU established the Guru Nanak Dev ji chair **for studies in Global Peace & Equality** at the campus. Chair was established in an **International Seminar on Peace, Justice and Global Harmony**, enlightened the most important and radical social teachings of Guru Nanak Dev Ji. Last year, embracing the teachings of Shri Guru Nanak Dev Ji, on his 550th Birth Anniversary, Punjab Govt. installed a chair in the name of Guru Nanak Dev Ji at LPU. Lovely Professional University proudly became one of the 11 universities across the globe to have a 'Chair in the name of Guru Nanak Dev Ji,' endowed with research on the life of Nanak Ji.

## **RESEARCH INITIATIVES**

LPU is committed to prioritize its research work in achieving goals of sustainability. LPU faculty is committed in carry out its research work and publishing numerous research in various reputed journals on global issues as well as national issues. Some of the titles of research publications are mentioned here:

*Kumar, Sunil, and Soni Subedi. "Microfinance Schemes for Women Entrepreneurship in India: A Case Study of Sikkim State." Empowering Women Through Microfinance in Developing Countries. IGI Global, 2023. 124-140.*

*Nair, Bipithalal Balakrishnan, Satyajit Sinha, and M. R. Dileep. "Who Owns the Heritage? Power and Politics of Heritage Site Management in Tourism, Hampi, India." Archaeologies 19.2 (2023): 276-298.*

*Bawa, Adam Gana, and Supreet Kaur. "Gender-Based Violence: Implications for Girl-Child Education in Some Selected Displaced Persons Camps in Maiduguri." Education Research International 2023.1 (2023): 8446724.*

*Pandey, Mithilesh, and Pinnika Syam Yadav. "Understanding the role of individual concerns, attitude, and perceived value in green apparel purchase intention; the mediating effect of consumer involvement and moderating role of generation Z&Y." Cleaner and Responsible Consumption 9 (2023): 100120.*

Saleem, Mohammad, Touseef Rizvi, and Irfan Bashir. "The role of hope in buffering the influence of intolerance of uncertainty on student's psychological well-being." *Peace and Conflict: Journal of Peace Psychology* (2023).

## Conferences

Each year, the university hosts several national and international conferences focused on a variety of important topics, with a particular emphasis on Sustainable Development Goals (SDGs). These conferences aim to address the needs of the local community as well as the students, promoting discussions and solutions on pressing societal issues.

<b>Name of Conference</b>	<b>Start Date</b>	<b>End Date</b>
International Conference Philosophy of Peace, Justice & Equality (Under Shri Guru Nanak Dev Ji Chair)	30-Nov-2023	30-Nov-2023
Annual International Conference and Global Summit	30-Oct-2023	3-Nov-2023
International Conference on Revitalizing Social Institutions for Peace, Justice and Environmental Protection	16-Apr-2022	16-Apr-2022
1 <sup>st</sup> International Conference on Sustainable Development Goals (ICSDG 2023)	29-Sep-2023	30-Sep-2023
International Conference on Recent Trends in Smart and Sustainable Agriculture for Food and Nutritional Security	22-Nov-2023	23-Nov-2023

## REPRESENTATION OF STUDENTS, FACULTY/STAFF AND EXTERNAL STAKEHOLDERS IN UNIVERSITY'S ACADEMIC AND ADMINISTRATIVE BODIES

At Lovely Professional University (LPU), the commitment to fostering inclusive governance is reflected in the representation of students, faculty, and staff in academic and administrative bodies. Aligning with the United Nations Sustainable Development Goal (SDG) 16, which emphasizes the importance of peaceful and inclusive societies, LPU actively promotes participatory decision-making processes.

By ensuring diverse representation within its governance structures, the university creates an environment where all voices are heard and valued.

LPU also promotes freedom of speech, ensuring that everyone can express their opinions and provide valuable feedback on key issues and challenges. The university promotes a democratic environment by allowing students, faculty and staff to elect representatives to various university committees and councils, such as the Internal Quality Assurance Cell, Internal Complaints Committee, and Anti-ragging Committees. These committees also include faculty members to discuss academic and administrative matters. Additionally, LPU faculty have equal participation in various governing bodies, including the Academic Council and Academia Industry Interface Council, among others.

### **LPU recognizing Student Council**

LPU's student council operates with the freedom to organize various activities, with minimal interference, while receiving necessary guidance when needed. This council plays a crucial role in enhancing students' planning, organizing, leadership skills, and volunteerism across a range of events, including social, cultural, sports, and other educational, political, welfare, and academic activities. To learn more about the University's student council [click here](#)

### **Collaboration for policy development providing expert advice**

Lovely Professional University has fostered many meaningful collaborations with regional NGOs and government bodies to drive policy development through a multifaceted approach. University provides an established and dedicated platform for dialogue and information exchange, and thus invites NGOs and government representatives to participate in seminars, workshops, and research initiatives. This open channel of communication allows academics, policymakers, and grassroots organizations to share insights, data, and practical experiences, leading to the formulation of well-informed policies. Moreover, LPU offers their research expertise to NGOs and government agencies, conducting studies that address specific regional challenges. Collaborative projects involving joint fieldwork, surveys, and data analysis, ensuring policies are grounded in empirical evidence and community needs. By nurturing these partnerships, LPU plays a pivotal role in bridging the gap between theory and real-world policy implementation, fostering a more inclusive and effective policymaking process.

In this context, LPU's many faculty/staff members are actively participating for policy development of various organization.

1. Prof. (Dr.) Monica Gulati, Lovely Professional University is a vice president SPER Women's Forum Council of Society of Pharmaceutical Education & Research
2. Dr. Bimlesh Kumar, Lovely Professional University, Secretary of Punjab State Branch of Society of Pharmaceutical Education & Research.

For more details, [click here](#)

### **LPU providing capacity building trainings to external organizations**

Lovely Professional University empowers professionals with the competencies necessary to excel in the contemporary business landscape. Responding to the global need for adaptable and forward-thinking professionals LPU's training programs are a dynamic blend of theoretical insights and practical applications. The curriculum of training programs is crafted on the basis on training need analysis by adopting triangulation approach: using multiple datasets, methods, theories, and/or investigators to diagnose the training requirements. By focusing on experiential learning, we provide opportunities for participants to engage in hands-on projects, workshops, and case studies, fostering both personal and professional growth. [Click here](#) for more information.

### **University's best practices for policy focused research**

Sustainable Development Goals (SDGs) established by the United Nations are a universal call to action to end poverty, protect the planet, and ensure prosperity for all. Achieving these goals requires a concerted effort from all sectors of society, wherein educational institutions like universities play major role in creating awareness among citizens. Universities acts as centers of knowledge, research, and innovation and thus play crucial role in advancing sustainable development goals. Lovely Professional University has adopted many best practices for achieving the SDGs through education, research, community engagement, and partnerships. For more information, [click here](#)

### **Campus Engagement Activities**

#### **The Independence Day of Bangladesh” “Inauguration of Bangabandhu Corner**

To mark the birth anniversary of Bangladesh's Bangabandhu Sheikh Mujibur Rehman, on the occasion of 'The Independence Day of Bangladesh', Bangabandhu Corner was inaugurated by H.E. Mr. Muhammad Imran, High Commissioner of Bangladesh to India and an MoU was also signed between LPU

and High Commission of Bangladesh to expand educational opportunities for students. [Click here](#) for more information.



**মুজিব MUJIB**  
শতবর্ষ 100

LOVELY  
PROFESSIONAL  
UNIVERSITY  
*Transforming Education Transforming India*

গণপ্রজাতন্ত্রী বাংলাদেশ  
সরকার

**We Welcome**  
**H.E. Mr. Muhammad Imran**  
High Commissioner of Bangladesh to India  
to  
**GOLDEN JUBILEE CELEBRATIONS**  
On the Occasion of  
“The Independence Day of Bangladesh”  
“Inauguration of Bangabandhu Corner”

#### **4th Moot Court Competition at LPU, 17th February 2023**

The 4th Moot Court Competition was successfully held at Lovely Professional University (LPU) on 17th February 2023. Organized by the School of Law, the event aimed to provide law students with practical experience in the field of advocacy, enabling them to develop skills in legal research, reasoning, and oral argumentation. The competition simulated real-world court proceedings, with teams representing both sides of the case, honing their courtroom skills.



Judges evaluating participants' performance during the 4th Moot Court Competition

### **Celebrating the Heritage & Flavors of Cultural Diversity at LPU: One World 2023, 8<sup>th</sup> April 2023**

LPU celebrated 72-hour-long global cultural diversity at its campus it is India's largest international students' fest 'One World 2023' Nearly 25 Indian universities with many thousands of international students belonging to 50+ countries are participating to showcase the unique culture of different countries. The aim is to promote the idea of the world being one family. The festivities were flagged off with a 4-kilometre-long procession which comprised thousands of international students holding flags and banners of their respective country and university.



Some glimpses of One World Event students are showcasing their talent



### International Non-violence Day – Gender Sensitization Rally

International **Non-violence Day** celebration and its ethos aligned with the SDGs as SDG 4 –Quality Education, SDG 5 – Gender Equality, SDG 16 – Peace, Justice, and Strong Institutions. This event specifically targeted to work on Gender sensitization among the students to perform the role of teachers in future. It was important for them to understand this aspect while dealing with the diverse

settings. Students prepared poster and slogans and used them for rally to aware the people for maintaining peace through non-violent ways.

The poster features the LPU logo and NAAC A++ grade accreditation. The title is "International Day of Non-Violence Gender Sensitization Rally". The date is 3rd Oct, 2023, from 11:00 am to 2:00 pm, at Block 18-106. It is organized by the School of Education, LPU. The graphic includes two white doves with a peace symbol between them, and three stylized human figures below. The "ThinkBIG" logo is in the bottom right.



Students giving slogans for Gender equality



# SDG 17 – PARTNERSHIPS FOR THE GOALS

**Introduction:** Lovely Professional University (LPU) aspires to stand out as a leading academic institution with global recognition for its contributions to industry and society. This recognition is built on a foundation of excellence in teaching, learning, research, international engagement, entrepreneurship, and leadership.

LPU collaborates closely with both public and private sectors, NGOs, charitable organizations, and research institutions to establish impactful connections in the realm of sustainable development. The university demonstrates its commitment to social responsibility and civic engagement in higher education by actively participating in various teaching, research, and community-oriented initiatives. In pursuit of its objectives, LPU is dedicated to forming diverse international partnerships that address local, national, and global issues.



## **Objectives**

- Promote inclusive and equitable education focusing on lifelong learning
- Strengthen education systems through research and partnerships.
- Address global challenges and contribute to societal progress.
- Ensure gender-sensitive policies on campus, including gender parity in academic representation and leadership roles.
- Implement eco-friendly practices on campus, such as using renewable energy, and promoting sustainable transport options.
- Reduce waste and create green spaces within university campuses.
- Strengthen partnerships with local communities, non-profits, international organizations, and other universities to share knowledge and best practices for sustainable development.

## **Collaboration for Sustainable Research**

### **Lower-middle Income Countries and Global**





University researchers have collaborators globally and many low and low-middle income countries. As an outcome LPU has publications with authors affiliated from 127 countries that includes Egypt, Ethiopia, Iran, Nigeria, Jordan, Pakistan, Bangladesh, Morocco, Lebanon, Afghanistan, Papua New Guinea, Algeria, Tunisia, Nepal, Sudan, Ghana, Angola, Uganda, Bhutan, Uzbekistan, Syrian Arab Republic, Philippines, Rwanda, Tanzania, Yemen, Zambia, Cameroon, Kenya, Lesotho, Malawi, Niger, Somalia, Sri Lanka.

### **Funded Project Collaborations**

University researchers have partnered with experts from various research fields allows them to tap into a wealth of knowledge, enabling a more profound analysis of problems and the development of effective strategies. Additionally, collaborative efforts promote the sharing of resources, both in terms of funding and infrastructure. Research projects often require substantial financial investment and specialized equipment, which can be shared among collaborating institutions, making research initiatives more sustainable and impactful.

LPU has funded projects by partnering with international bodies/organization both governmental and nongovernment to improve the living standards and achieve sustainable growth. The list of collaborators has focused on all key areas addressed in Sustainable Development Goals and the outcome of these projects have resulted in framing policies and guidelines for healthy life and sustainable growth.



## Regional NGOs/Government Collaboration for SDG Policy Development

Lovely Professional University has fostered many meaningful collaborations with regional NGOs and government bodies to drive policy development through a multifaceted approach. University provides an established and dedicated platform for dialogue and information exchange, and thus invites NGOs and government representatives to participate in seminars, workshops, and research initiatives. This open channel of communication allows academics, policymakers, and grassroots organizations to share insights, data, and practical experiences, leading to the formulation of well-informed policies.

## **Identifying Problems and Challenges**

LPU leads the path for effective identification of social problems and challenges through, discussions, comprehensive and interdisciplinary approach. It is achieved by encouragement of faculty members and students from diverse fields such as sociology, economics, agriculture, etc. to collaborate, universities can conduct thorough research and analysis by engaging with local stakeholders, NGOs, and government agencies that provided with crucial insights into prevalent social issues.

## **Paddy Stubble Burning**

LPU recognizing the effect of Stubble Burning in Punjab and surrounding areas and assists farmers and landowners quench the blazes to protect environment as CSR activity.



## **Natural calamity like floods, droughts**

LPU Chancellor inspecting the flood ravaged Shahkot, Punjab in July 2023 and talking to local people to understand their issues and needs for better addressal.



## **Policy/Strategy Development**

LPU has continuously monitored these and other prevailing societal issues and has collaborated with regional NGOs and local bodies to tackle these issues that may involve **Policy Development**. LPU analyses the issues and tackles them by employing comprehensive strategies that blend research, education, and community engagement. LPU integrated social awareness and problem-solving skills into the curriculum, fostering a generation of socially responsible graduates. Additionally, partnering with local communities, NGOs, and government agencies allowed LPU to implement practical initiatives addressing immediate needs, creating a tangible impact. Furthermore, LPU organized awareness campaigns, workshops, and conferences to facilitate dialogue and knowledge-sharing among stakeholders.

## **Monitoring and reporting interventions**

University monitors the social issues and reports data in form of reports, data etc. to all major agencies like United Nations Academic Impact, Race to Zero, The SDG Accord, etc. The reporting of data includes solar energy production, GHGs emissions, treated sewage water, plantations, etc. LPU actively published articles and many articles are publicly available for learners to utilize data and frame policies and strategies accordingly.

## **Adaptive Management**

LPU has evolved to tackle many such issues with the partnership of various NGOs, student clubs, Government, etc. The active role played by university can lead to framing of various SDG policies by government at local, regional and national level that is a direct outcome of Monitoring and reporting social interventions.



**Quenching Local Agricultural Fires**



## **Feeding Belly Program to Eradicate Food Wastage and Feed Needy**

LPU-NSS team to organizes 'Feeding Bellies' to collect the extra uneaten and pure food (not the leftover) from different hostel, cafeterias, etc. of LPU campus & distribute in amongst the poor and displaced communities of nearby villages & slums. This practice has led to reduction in food wastage and Alleviate Hunger among poor and needy.



## **Cross-Sectoral Dialogue on SDGs**

### **Platform for Conferences**

Lovely Professional University collaborates with partnering Government and Non-Government organizations including NGOs to host various events like conferences, aimed at general audiences event, which in 2020 featured the chief of the United Nations Academic Impact on the role universities play in advancing the UN SDGs, and its Global Health Collective podcast focusing on people helping meet the UN SDGs. McMaster's Global Health Office runs an annual symposium that focuses on the SDGs with international partner universities.





## International collaboration data gathering for SDG

Partnership with **UN Environment Programme** for Data submission for Race to Zero.



University actively participates in conduct, implement and assessing outcome with respect to 17 Sustainable Development Goals so as become complete sustainable campus by 2029 as per University's commitment in '**Race to Zero**', which is EAUC – The Alliance for Sustainability Leadership in Education, supported by IPCC's strong message to achieve global Carbon Neutrality. This campaign is run in partnership with **EAUC, Second Nature** and **UN Environment Programme**. The public version to publishing annual SDG reports on the progress towards achieving the Goals is essential for several reasons is University's commitment towards collaboration to measure data on SDGs.

## United Nations Academic Impact (UNAI)

Lovely Professional University United Nations Academic Impact (UNAI) is an active member of **United Nations Academic Impact** which aligns institutions of higher education with the United



Nations in supporting and contributing to the realization of United Nations goals and mandates, including the promotion and protection of human rights, access to education, sustainability and conflict resolution. UNAI monitors the progress of University towards the goals set by United Nations.



#### Member of 'The SDG Accord'

Lovely Professional University is an active member of 'The SDG Accord' that inspires the critical role that education has in delivering the UN Sustainable Development

Goals (SDGs) and the value the interlinked objectives brings to governments, business and wider society. The Accord is a commitment made by learning institutions to one another, to do more to deliver the SDGs, annually report on individual progress and share the learning with each other both nationally and internationally. The annual report 2023 published by **The SDG Accord** marks LPU as member institution to share the SDG information.

#### Partnership with UNICEF

LPU organized International Conference on Feminine Hygiene Management- Beyond Taboo (ICFHM-2022) in

**collaboration with UNICEF** with focus on Generating awareness regarding menstruation, pregnancy, menopause and other normal physiological phenomena related to female health.



#### **Sustainability Focused Research and Innovation**

LPU has established a dedicated Research Centers for sustainable research "Research Centre on Environment and Climate Science" This centre works on the green technology, alternative technology, green nano technology, and computation technologies. In addition, the concept of environmental sustainability is inculcated in the UG, PG, and PhD students/scholars, following measures are taken. research centers that encourage collaboration across departments (e.g., health sciences, engineering, social sciences). These centers focus on problem solving and have clear, measurable outcomes such as

publications, patents, or public health impacts. The outcome for sustainable research is visible from research stats of LPU, as mentioned below:



## Market Ready Prototypes

### Hexdoc: An IoT-enabled hexapod robot



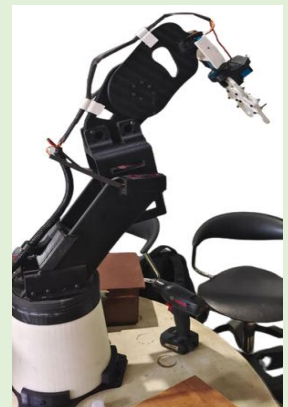
To assist humans in disaster situations and emergencies

### Industrial Robotic Arm with Teach Pendant

To develop a 5 DOF robotic arm with teach pendant for various industrial applications.

5 DOF robotic arm is tailored to meet specific needs and requirements.

Teach Pendant makes programming and operating the robotic arm simple and intuitive. Users can easily teach the arm up to 200 different tasks, all of which can be stored and retrieved as needed. **Versatile Applications:** The robotic arm can handle a wide range of industrial tasks, such as: Assembly line operations Material handling Packaging and palletizing Welding Inspection and quality control



### Treadmill Cycle

It is an electric two-wheeler that can be exclusively deployed in daily transportation. The 'Treadmill cycle' is an electric, self-charging vehicle that can be used in daily transportation. It reduces the transportation cost and charging time, and also helps the user to stay fit in busy life style



## **Partnership for Societal Impact**

### **Feeding Needy and Poor**

Unit Prayas in collaboration with unit Samarthaya together took forward a step in 'FEEDING BELLIES' by feeding the needy and poor in nearby villages and areas surrounding University.



NSS team members distributing food and eatables among needy



Members pose for a photograph for One Day Master Trainers Training Program

### **Empowering Youth Leaders**

Lovely Professional University in collaboration with Ministry of Youth Affairs & Sports, **Govt. of India** conducted One Day Master Trainers Training Programme for NSS Program Officers on Bharat Portal.

### **Spinal Cord Injury Rehabilitation Conference**

The conference was jointly organized by the Spinal Cord Injury Association of India and LPU to sensitize society and various agencies to adopt stringent measures for the prevention of such injuries



Chief Minister of Punjab, Shri Bhagwant Mann, interacted with people with Spinal Cord Injuries at LPU

## Collaboration with NGOs for SDGs



Ministry of External Affairs & LPU organized Public Health & Community Care course for 14 countries' officials

## **Rural Agricultural Work Experience (RAWE)**

RAWE is Student READY Program that provides exposure to agricultural students to the natural setting and village situations, allows them to work with the farm families, identify their problems, and make use of various extension tools for transferring the latest agricultural technologies. RAWE programme is



aimed at providing an opportunity to the students to understand the rural setting in relation to agriculture and allied activities.

## **Championing Environmental and Social Responsibility**

LPU NCC is dedicated to community service, organizing impactful programs for awareness and action in association with villages and local bodies. On the eve of Earth Day, NCC cadets planted trees and cleaned the Satluj River as part of the Swachh Bharat Abhiyan.



## Link to All SDG Annual Reports

### SUSTAINABLE DEVELOPMENT GOALS

### WEB LINK TO ANNUAL REPORTS

**SDG 1 – NO POVERTY**

[Click Here](#)

**SDG 2 – ZERO HUNGER**

[Click Here](#)

**SDG 3 – GOOD HEALTH AND WELL-BEING**

[Click Here](#)

**SDG 4 –QUALITY EDUCATION**

[Click Here](#)

**SDG 5 – GENDER EQUALITY**

[Click Here](#)

**SDG 6 – CLEAN WATER AND SANITATION**

[Click Here](#)

**SDG 7 –AFFORDABLE AND CLEAN ENERGY**

[Click Here](#)

**SDG 8 –DECENT WORK AND ECONOMIC GROWTH**

[Click Here](#)

**SDG 9 – INDUSTRY, INNOVATION AND INFRASTRUCTURE**

[Click Here](#)

**SDG 10 – REDUCED INEQUALITIES**

[Click Here](#)

**SDG 11 – SUSTAINABLE AND COMUNITIES**

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**SDG 12 – RESPONSIBLE CONSUMPTION AND PRODUCTION**

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**SDG 13 – CLIMATE ACTION**

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**SDG 14 – LIFE BELOW WATER**

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**SDG 15 – LIFE ON LAND**

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**SDG 16 – JUSTICE AND STRONG INSTITUTION**

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**SDG 17 – PARTNERSHIPS FOR THE GOALS**

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