POLYCHRONICLE

2025 | Volume I | Issue I

LOVELY PROFESSIONAL UNIVERSITY

Transforming Education Transforming India

NAAC GRADE A++

15-Year-Old Invents Cancer-Fighting Soap, Named TIME Kid of the Year 2024

In a remarkable blend of compassion and innovation, 15-year-old Heman Bekele from Virginia was named TIME's Kid of the Year 2024 after inventing a low-cost soap designed to help treat early-stage skin cancer. Inspired by childhood memories in Ethiopia and the global need for accessible healthcare, Heman developed a soap infused with cancer-targeting nanoparticles that stimulates immune responses against melanoma. The invention, which costs under \$10 per bar, won him the 3M Young Scientist Challenge and is now being further developed with medical experts—offering hope to millions in underserved communities.

LPU Showcases 2,000+ Innovative Student Projects at Innotek 2025

At the Annual Innovation & Graduating Project Expo (Innotek 2025), over 2,000 students showcased cutting-edge projects spanning AI, robotics, smart systems, and automotive engineering. From electric car models to aerospace prototypes, this vibrant display emphasized LPU's role in nurturing practical, real-world engineering innovations

LPU Hosts Grand Finale of Smart India Hackathon 2024 (Software Edition)

Smart India Hackathon 2024 Finale Hosted by LPULPU proudly hosted the Grand Finale of the 2024 Smart India Hackathon (Software Edition), drawing top student teams to solve critical national challenges via software solutions. The event underscored students' creativity, teamwork, and problem-solving abilities in addressing societal needs

Message from the Head of School

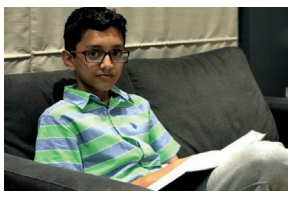
It gives me immense pride to witness the outstanding achievements of our students and faculty, as showcased in this edition of the news letter. From securing national and international patents to present ing cutting-edge research at global conferences, the School of Poly technic continues to uphold a legacy of innovation, excellence, and social responsibility. We believe in nurturing not just technocrats, but responsible citizens equipped to lead with empathy, sustainability, and vision. Our place ment results, vibrant student activties, and interdisciplinary collaborations reflect the robust ecosystem we have built together. I congratulate all contributors and encourage each one of you to dream big, stay curious, and keep pushing boundaries. Let this be a reminder that at LPU, your aspirations have the power to shape a better tomorrow.

Prof. (Dr.) Satnam Singh
Head, School of Polytechnic Lovely Professional University

Polytechnic Student Secures Patent for Smart Stapler Innovation

Brajesh Kumar, a promising 2020 batch student of Mechanical Engineering from the School of Polytechnic, has been granted a patent for his inventive project titled "A Smart Stapler." Under the expert guidance of Dr. Satnam Singh, the innovation aims to enhance everyday office utility through intelligent design. The patent, officially granted on August 7, 2023, under the Industrial Engineering category, is recognized nationally. Brajesh's accomplishment reflects the School of Polytechnic's dedication to applied innovation and practical learning. His achievement sets a benchmark for fellow students pursuing excellence through creativity and technical expertise.

Haaziq Kazi's ERVIS Vessel Tackles Marine Plastic Pollution with Innovation

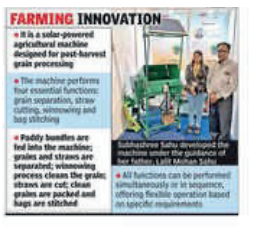


Haaziq Kazi (born 2006, Pune): ERVIS Ocean Cleanup Vessel Haaziq, dubbed a "child prodigy," designed ERVIS, a conceptual ship using renewable fuels and whirlpool mechanisms to suck marine plastic debris into compartments sized by waste category. Highlighted at TEDx and across media, Haaziq remains a prominent youth voice for ocean cleanup

School of Polytechnic Student Granted Patent for Innovative Invention

Ritik Sumbria, a brilliant student from the School of Polytechnic (Batch 2020), pursuing a dual diploma-B.Tech in Mechanical Engineering, has been granted a patent for his invention titled "Automatic Dispenser for Excess Water in Refrigerator." Guided by Dr. Satnam Singh, the innovation offers a smart solution for water management in refrigeration systems. The patent, categorized under Industrial Engineering, was officially granted following its filing on October 22, 2020. This significant achievement showcases the research-driven environment of the School of Polytechnic and stands as a proud moment for the institution and its aspiring technocrats.

Subhashree Sahu Develops Award-Winning Solar-Powered Agri Machine



Subhashree Sahu (Class XI, Odisha): Solar-Powered Agri MachineSubhashree built a solar-powered multifunctional agricultural device that performs threshing, grain separation, straw cutting, winnowing, and bag-stitching—processing up to 250 kg/hour. Recognized nationally (INSPIRE award) and internationally (selected for Japan's Sakura Science Exchange in June 2025), her machine empowers small-scale farmers with eco-friendly tools

RESEARCH & ACADEMIC ACHIEVEMENTS

Polytechnic School Excels with 132 Patents and 40+ Research Publications in 5 Years

The School of Polytechnic has demonstrated outstanding research productivity and innovation over the past five years, contributing significantly to academic and technological advancement.

The department boasts 27 Ph.D. and non Ph.D. faculty members whose collective efforts have led to 22+ Scopus/WoS publications and 17 research papers in refereed journals. Faculty have also submitted 5 grant proposals to prestigious funding bodies such as the Science and Engineering Research Council (SERC) and SERB-SURE.

On the international front, faculty presented 22+ papers indexed in Scopus conference proceedings, published 3 books with national and international publishers, and secured 132 national and international patents—granted, filed, or published. Furthermore, 4 copyrights were successfully granted.

These accomplishments underscore the School's commitment to excellence in research, innovation, and global academic collaboration, aligning with LPU's NAAC A++ grade and its vision for a research-driven educational environment.

LPU Ph.D. Graduate's Research Paper Accepted at MECC 2025 (USA)

Dr. Prerna Jain, who recently completed her Ph.D. in Mathematics from Lovely Professional University (LPU) under the supervision of Prof. (Dr.) Nitin Kumar Mishra (School of Polytechnic), has had her research paper accepted at the prestigious MECC 2025 — the Modeling, Estimation and Control Conference, to be held in the United States of America (USA).

Her accepted paper, "Triangular vs. Trapezoidal vs. Heptagonal Fuzzy Models: Optimizing Blockchain-Enabled Profitability Under Uncertainty,"□has been selected as Contributed Paper No. 226. The study highlights innovative applications of fuzzy logic and blockchain in optimizing supply chains.

MECC, organized by the IEEE Control Systems Society, is a globally recognized platform for emerging research in control systems and intelligent modeling.

This international recognition reflects LPU's continued commitment to impactful and interdisciplinary research.

Monika, under Dr. Nitin K. Mishra's supervision from Polytechnic, is selected for Postdoc at CentraleSupélec, France

Monika is a research scholar in the Department of Mathematics under the supervision of Dr. Nitin Kumar Mishra (School of Polytechnic). She got selected for the postdoc position at Central supelec University, France with a monthly stipend of £2400 (~240000 per month). Her proposed research primarily focuses on optimizing resource allocation for risk management in complex engineering projects, such as mega projects, where risks are often interdependent and some risks can be mitigated collectively for overall optimality, with consideration of secondary risks.

A++ grade and its vision for a research-driven educational environment.

Polytechnic Students Co-Author Smart Socket Paper for ICCMC 2025



Students Shelthy Mariridza and Simon Mukute from the School of Polytechnic have co-authored a research paper titled "INTELLIPOWER HUB: A Next-Generation Smart Socket" under the guidance of Dr. Akanksha Sharma. The paper has been submitted to the 8th International Conference on Computing Methodologies and Communication (ICCMC 2025).

This marks a key achievement in promoting student-led innovation and research exposure. Dr. Sharma also published two notable papers in Q1 and Q3 journals in 2024 and 2025, further strengthening LPU's presence in the global power and energy research community

Polytechnic Students Granted Patent for Automotive Innovation

A team of bright innovators from the School of Polytechnic has been granted a patent for their groundbreaking project titled "A Device Using Shaft as a Power Source in Automotive Vehicle." Guided by Dr. Satnam Singh, the invention includes contributions from students Brajesh Kumar (Mechanical Engg.), Aditya Vikram (CSE Engg.), Gurkirat Singh, Arshvinder Singh, and Mohit Jain (Automobile Engineering). Officially granted under the Industrial Engineering category, the patent boosts prospects for energy-efficient vehicle technologies. This success reflects LPU's strong emphasis on interdisciplinary collaboration and hands-on innovation in technical education.

Dr. Prerna Jain, under Dr. Nitin K. Mishra's supervision from Polytechnic, presents paper at INCOM 2024, TU Wien, Austria


Dr. Prerna Jain, Research Scholar under the supervision of Prof. (Dr.) Nitin Kumar Mishra (School of Polytechnic), presented her research paper titled" Enhancing Supply Chain Efficiency with Blockchain: Addressing Information Sensitivity for Increased Manufacturer Profitability" at the 18th IFAC Symposium on Information Control Problems in Manufacturing (INCOM 2024) held at TU Wien (Vienna University of Technology), Austria from August 28–30, 2024. TU Wien, ranked among the Top 200 globally in the QS World University Rankings 2024, hosted global experts under the theme□ Guided by Prof. (Dr.) Nitin Kumar Mishra (Department of Polytechnic), Dr. Jain also participated in the Doctoral Workshop and the Data-Driven Supply Chain Competition at the conference. Their paper has been published open access in the Scopus and Elsevier-indexed IFAC-PapersOnLine journal, Volume 58, Issue 19 (2024), markinga significant academic achievement and global recognition for research emerging from LPU.

ACADEMIC & STUDENT ACTIVITIES

Yoga Session Promotes Wellness at LPU

Lovely Professional University, April 4, 2025 —□ The School of Polytechnic organized a yoga session for students and faculty, led by Ms. Reshma Goluguri, a Diploma Engineering student and yoga trainer. Held in Room 55-802 from 9:00 AM to 11:00 AM, the session focused on relaxation, mindfulness, and breathing techniques to promote physical and mental well-being. The event saw active participation and was appreciated as a step toward fostering a healthier campus environment.

Polytechnic Students Spread Kindness Through 'Hope Harvest' Event

The School of Polytechnic organized a heartwarming social outreach event titled "Hope Harvest" with the motto "Transform lives with the currency of kindness." Held at Pingla Ghar, the initiative aimed at empowering the vulnerable and supporting the mentally challenged, destitute, and abandoned individuals. Students provided essential supplies and interacted compassionately with residents, creating a sense of dignity and hope. The event embodied values of empathy, inclusion, and service, reflecting LPU's vision for holistic education. "Hope Harvest" proved to be more than just an event—it was a step toward transforming lives through purposeful student action.

Guest Lecture Explores Net Zero Buildings as a Pathway to Sustainable Future

The School of Polytechnic recently hosted an insightful online guest lecture titled "Net Zero Building: An Approach Towards Sustainability" , aimed at equipping students with knowledge on sustainable construction practices and their growing importance in civil engineering.

Held on October 9, 2024 , and conducted via the MyClass platform , the session was delivered by Er. Umer Farooq , Team Lead at Expertise Modular Building Solutions in Jubail, Saudi Arabia. With over 21 participants, including students and faculty, the lecture focused on how net zero buildings are transforming the built environment through energy efficiency and innovative design.

National Science Day Quiz 2025 Celebrated at School of Polytechnic, LPU

The School of Polytechnic, Lovely Professional University, organized the National Science Day Quiz 2025 on April 28 with the theme "Indigenous Technologies for Viksit Bharat." Held offline in Room 55–802, the quiz featured 20 participants from various diploma engineering streams. Interactive rounds integrated AI tools, QR codes, and real-time scoring. Winners received certificates and prizes, and all participants would be awarded e-certificates. The event successfully promoted scientific thinking, digital learning, and awareness of indigenous innovations.

One India Polytechnic Event Showcases Uttarakhand's Heritage

The School of Polytechnic at Lovely Professional University, Phagwara, organized the vibrant One India Polytechnic event, celebrating Uttarakhand's cultural richness. Over 50 student entries were submitted by January 15, 2025, with 30 students selected for their exceptional model-making skills. Divided into three teams—Models Fabrication Team 1, Models Fabrication Team 2, and Posters and Drawing Team—the students collaborated seamlessly, reflecting LPU's ethos of Unity in Diversity. Using natural and recyclable materials like tree leaves and grass, they crafted stunning models and props representing Uttarakhand. Their dedication earned them a commendable 4th Consolation Prize at One India 2025, highlighting their creativity and teamwork. This event showcased the talent and unity within the Polytechnic community.

New Research Publication by Dr. Ranu and Dr. Nitin Kumar Mishra from Mathematics (Polytechnic) in SCOPUS Q2 Journal

We are pleased to share that Dr. Ranu under the supervision of Prof. (Dr.) Nitin Kumar Mishra (School of Polytechnic) have published their latest research article in the Operations Research Forum, a SCOPUS(Q2) and SCImago-indexed journal published by Springer Nature Switzerland AG.

Title: "A Three-Level Refrigeration Supply Chain Inventory Model Including Linear Time-Dependent Demand for Temperature-Sensitive Items Considering Carbon Tax Regulations"

Published: 3 June 2025, Volume 6, Article No. 74 (2025)

The paper presents a novel supply chain inventory model focused on temperature-sensitive products, integrating time-dependent demand and carbon tax considerations — a timely contribution to the growing field of sustainable operations management.

This publication marks another milestone in the department's high-quality research contributions.

Annual School Event Honors Polytechnic Achievements

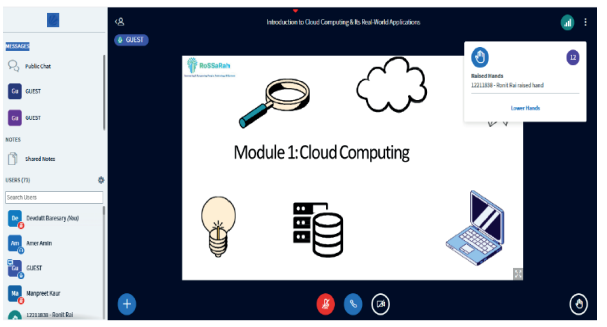
On April 28, 2025, the School of Polytechnic at Lovely Professional University, Phagwara, hosted its Annual School Event in Room 55-802, bringing together 98 students and faculty. Organized by the School and led by Assistant Professors Mr. Mandeep Singh and Mr. Gagandeep Singh, the offline event celebrated academic, cultural, and extracurricular successes. Final-year students were recognized for their placements and projects, while awards were given to winners of events like One India and One World. Inspirational speeches by faculty and alumni, paired with vibrant student performances, fostered unity and pride. The event motivated underclassmen to excel and strengthened the Polytechnic community's spirit, aligning with SDG-04 (Quality Education).

PLACEMENT HIGHLIGHT & EVENT ORGANIZED

Guest Lecture Offers Insight into Cloud Computing and Its Real-World Applications

The School of Polytechnic recently conducted an engaging online guest lecture titled "Introduction to Cloud Computing & Its Real-World Applications" , aimed at familiarizing students with one of the most transformative technologies shaping today's digital landscape.

Held on April 18, 2025 , and delivered via the MyClass platform , the session was led by Er. Nikhil , a Cloud Computing Expert from SynTecSys Pvt. Ltd., New Delhi . With over 78 participants , including students and faculty from the Computer Science Engineering department, the lecture explored the foundational concepts of cloud computing and its growing relevance across industries.



Guest Lecture Highlights The Power of Data Analysis in the Age of Information

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Guest Lecture Explores Cement Innovations in Sustainable Construction

The School of Polytechnic recently hosted an engaging guest lecture titled "Introduction to Cement: Innovations for Sustainable Construction" , aimed at educating students about the evolving role of cement in environmentally responsible building practices.

Held on November 14, 2024 , and conducted offline in Block 55-802 , the session was led by Er. Amninder Singh , Senior Engineer at Ultra Tech Cement Ltd., Ludhiana. With over 42 participants , including students and faculty, the lecture focused on how innovations in cement production are helping reduce carbon emissions and promote sustainable development in the construction industry.

Workshop on Cyber Security Equips Students with Essential Digital Defense Skills

The School of Polytechnic recently conducted an intensive two-day workshop titled "Workshop on Cyber Security" , aimed at equipping students with foundational and advanced knowledge of cybersecurity in today's increasingly digital world.

Held on February 13–14, 2025 , and conducted offline in Rooms 55A-502 and 57A-502 , the session was led by Er. Mayank R Pandya , Director at Mile2.USA ATC DevAum Technologies, Vadodara, Gujarat . With over 95 participants , including students from the Computer Science Engineering department, the workshop provided hands-on exposure to modern cybersecurity threats, tools, and best practices.

INNO-TECH 2025 Show cases Innovation for a Sustainable Future

Kapurthala, March 18–19, 2025 – INNO-TECH 2025, a state-level innovation fest held at Science City, Kapurthala, brought together over 150 projects from 20+ engineering institutions, all centered around the theme "Sustainable Development and Environment Conservation."

The School of Polytechnic made a remarkable impact with 28 student-led projects, 12 of which reached the finals. Five projects won top honors:

1st Prize (₹7000): Smart Air Purifier and BRAILLEX: Text to Braille Converter

2nd Prize (₹5000): Dhanvantari Vatika

3rd Prize (₹3000): Smart Healthcare Glove and Rail Madad CMS

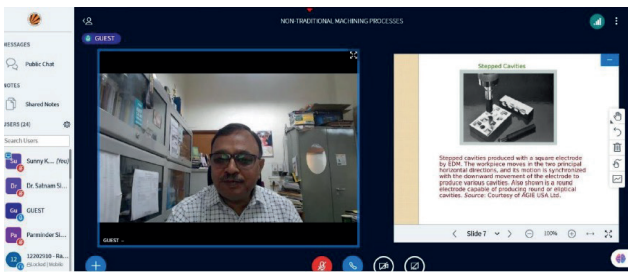
Beyond competition, students gained hands-on experience, exposure to new technologies, and motivation to innovate for a better, greener tomorrow.

Excellent Placement Results for School of Polytechnic Students

The School of Polytechnic continues to raise the bar in career outcomes, as all actively registered placement students secured positions in reputed companies during the latest campus placement drive. Top recruiters included Kyndryl Global Technology Services, Tex Fasteners, DRA Infracon, Dixon Technologies, among others—offering diverse roles across technical domains. A major highlight was the selection of five Diploma CSE students by Kyndryl Global Technology Services, each receiving an impressive package of ₹3.90 LPA. Overall, the average package across all selected students stood at a promising ₹3.11 LPA.These results reflect the institution's strong industry ties, rigorous training, and the readiness of its students to thrive in the professional world.

EVENT ORGANIZED & STUDENTS CORNER

Guest Lecture Explores Non-Traditional Machining Processes in Modern Manufacturing



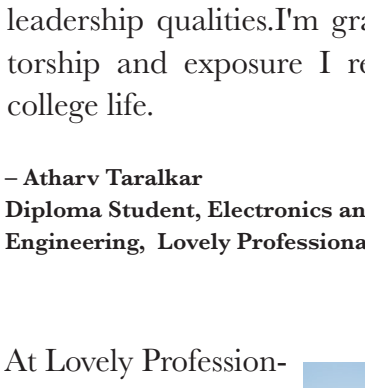
The School of Polytechnic recently conducted an insightful online guest lecture titled "Non-Traditional Machining Processes" , aimed at introducing mechanical engineering students to advanced manufacturing techniques that are redefining industrial production.

Held on April 1, 2025 , and delivered via the MyClass platform , the session was led by Dr. Rajiv Kumar Garg , Professor (HAG) , and former Director of NIT Arunachal Pradesh and NIT Jalandhar. With over 29 participants , including students and faculty, the lecture explored how non-traditional machining methods are revolutionizing the processing of complex and high-strength materials.

Students Speak, Stories Inspire
Real experiences from our vibrant campus

My journey at Lovely Professional University has been truly inspiring. My passion for technology began in childhood — from experimenting with electronic toys to building apps and coding in Java by the 4th grade. This curiosity grew into many unique projects, such as AI-based solutions, a Hospital Management System, Communication SDKs, an Ads System, and even the world's first fully online game project developed entirely on an Android phone. One of the proudest moments of my journey was showcasing my project at Asia's biggest tech conference, a milestone that gave me global recognition. LPU has given a new dimension to my journey. The supportive and innovative environment here allows students like me to transform achievements into bigger opportunities. Events like Edu Revolution and the university's dynamic culture have constantly strengthened my confidence, creativity, and problem-solving skills.Being a part of LPU is truly an honor, as this is the place where students don't just learn but also take their identity to a global stage

— Bhashkar Kumar
Diploma Student, Computer Science Engineering
Lovely Professional University

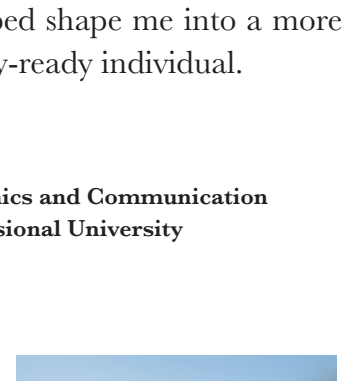


My journey at Lovely Professional University as a Diploma student in Electronics and Communication Engineering has been an incredible learning experience, both academically and practically.Throughout my time here, I've had the opportunity to work on innovative projects like Vision Aid and OptiBraille, which enhanced my technical and teamwork skills. I actively participated in various competitions such as Robo Sumo, Robo War, and multiple national-level hackathons including Hackoverflow 3.0, Codecrafters 2.0, and Technothon, where our team secured 2nd place at Hackoverflow and 1st at Codecrafters. These events allowed me to apply classroom knowledge to real-world challenges, while also improving my problem-solving and communication skills. Being part of such a dynamic environment has not only shaped my technical abilities but also boosted my confidence and leadership qualities.I'm grateful for the mentorship and exposure I received during my college life.

– Atharv Taralkar
Diploma Student, Electronics and Communication Engineering, Lovely Professional University

At Lovely Professional University, I engaged in diverse opportunities to learn and grow. One of my early accomplishments was completing the SSB course ,which honed my leadership and discipline. I actively participated in the MEDHA Hackathon and Build-a-Thon 2.0, where I collaborated with peers to design innovative solutions. I also showcased my creativity and technical knowledge at the Innotek Project Expo. The proudest milestone of my journey so far has been filing a patent titled "Dual Biometric Authenticated Car", marking the beginning of my contributions to innovation and research. My experiences at LPU have shaped me into a more confident, skilled, and forward-thinking individual

— Shreya Magar
Diploma Student, Computer Science Engineering
Lovely Professional University



During my time at Lovely Professional University as a Diploma student in Electronics and Communication Engineering, I've been fortunate to gain hands-on experience through both academic learning and practical innovation. I've contributed to projects like Vision Aid and OptiBraille, which focused on accessibility and assistive technology. These projects helped me strengthen my skills in embedded systems and teamwork. I also had the opportunity to represent our college in various technical competitions including Robo Sumo, Robo War, and national-level hackathons. One of the most rewarding experiences was securing 1st place at CodeCrafters, a competitive hackathon that challenged us to build impactful tech solutions under pressure. These events not only tested our technical knowledge but also enhanced our collaboration, problem-solving, and presentation skills.My college journey has truly helped shape me into a more confident and industry-ready individual.

– Atharave Karande
Diploma Student, Electronics and Communication Engineerig, Lovely Professional University

After joining the prestigious Lovely Professional University, I have achieved several significant milestones. I successfully completed the SSB course with an A+ grade and actively participated in Cognitia. I also represented in the Off-Road Robo Race held at IIT Ropar and showcased innovation at the Innotek Project Expo. One of my proudest achievements was filing a patent for my Low-Power Soil Management System, aimed at enhancing sustainable agriculture. Along with technical pursuits, I secured 2nd prize in a debate competition and 3rd prize in a storytelling competition. These experiences have helped me grow into a confident, skilled, and versatile individual.

— Jeet Nilesh Pandit
Diploma Student, Computer Science Engineering
Lovely Professional University

EDITORIAL TEAM

Thanks Note

The Editorial Team expresses sincere gratitude to all faculty members, students, and staff of the School for their valuable contributions in compiling and enriching this newsletter. Your support and active participation have made this edition possible.
We also extend heartfelt thanks to the Brand Development Team for their dedicated efforts in designing and presenting the newsletter in an appealing format.
We look forward to continued collaboration and enthusiastic contributions for the upcoming issues.
– Editorial Team

Editorial Team

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Department of Mathematics, Lovely Professional University

• Dr. Nitin K Mishra (UID: 12710) – Research Achievements (Faculty and Students)

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• Mr. Devdutt Baresary (UID: 25849) – Events Organized (Conferences, Workshops, Guest Lectures)

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• Mr. Kamlesh K Mishra (UID: 14703) – School-specific Innovations or Milestones (Sports, etc.)

Department of Mechanical Engineering, Lovely Professional University

• Mr. Ashish Sharma (UID: 14306) – Alumni Updates

Department of Electronics & Communication Engineering, Lovely Professional University

• Ms. Amandeep Kaur (UID: 29517) – Student Activities and Recognitions

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• Mr. Mandeep Singh (UID: 15984) – Student Activities and Recognitions

Department of Mechanical Engineering, Lovely Professional University

• Mr. Sunny Kaura (UID: 19316) – Placement Highlights

Department of Mechanical Engineering, Lovely Professional University

• Mr. Gagandeep Singh (UID: 15985) – Academic Achievements (Faculty and Students)

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Special Thanks

The Editorial Team extends special appreciation to the Brand Development Team for their support and creative contributions:

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• Mandeep (UID: 33743) – *Brand Development Team*