GALGOTIAS UNIVERSITY

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.



SDG - 9

Galgotias University
Sustainability Report

2025–26



INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote sustainable industrialization and foster innovation

INDUSTRY, INNOVATION AND INFRASTRUCTURE | GLOBAL CONTEXT

Sustainable development is closely linked to the advancement of resilient infrastructure, technological innovation, scientific research, and inclusive and sustainable industrial growth. At Galgotias University, this commitment is reflected through a wide range of academic initiatives, research activities, industry collaborations, technological advancements, and institutional practices that promote the objectives of Sustainable Development Goal 9 (SDG 9). Through quality education, interdisciplinary research, innovation-driven learning, and industry-oriented programmes, the university strives to develop a skilled, creative, and future-ready workforce capable of addressing emerging industrial, technological, environmental, and societal challenges. The university encourages students and faculty members to cultivate a spirit of innovation, entrepreneurship, scientific inquiry, and technological excellence while promoting sustainable solutions that contribute to economic growth and societal development.

Beyond the classroom, the university emphasizes the importance of strengthening industry–academia partnerships, promoting research and development, encouraging entrepreneurship, and advancing sustainable technological solutions through various institutional and collaborative initiatives. Industry-sponsored research projects, innovation challenges, expert lectures, seminars, workshops, technical training programmes, internships, research collaborations, and community-oriented technological interventions provide opportunities for students and faculty members to engage with emerging technologies and real-world industrial challenges. The university promotes the development of modern research infrastructure, interdisciplinary innovation, knowledge exchange, and technology-driven solutions across diverse sectors, including agriculture, engineering, management, information technology, and applied sciences. These initiatives aim to strengthen scientific capabilities, enhance employability, encourage innovation-led entrepreneurship, facilitate technology transfer, and contribute towards building sustainable and resilient industrial ecosystems.

By integrating education, scientific research, technological innovation, industry engagement, entrepreneurship, and sustainable infrastructure development, Galgotias University strives to contribute meaningfully towards building an innovative, inclusive, and technologically advanced society. Its initiatives reflect the belief that resilient infrastructure, responsible industrial development, accessible technologies, and strong industry–academia partnerships are essential foundations for long-term economic growth and sustainable development. Guided by its commitment to advancing the United Nations Sustainable Development Goals and strengthening its position in global SDG rankings, the university continues to foster a culture of research excellence, innovation, sustainability, and collaborative progress, contributing towards a resilient, inclusive, and sustainable future for all.

SDG 9 ACTIVITIES | 2025-26

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01 Faculty Development Programme On Recent Advances in Signal Processing with AI And VLSI Design (RASPAIVD-2026)



The Faculty Development Programme (FDP), scheduled from 16th - 20th February, 2026, by Department of Electrical, Electronics and Communication Engineering, designed to strengthen scientific research, technological innovation, and industry-oriented knowledge in alignment with Sustainable Development Goal 9 (SDG 9): Industry, Innovation and Infrastructure. The programme provides participants with exposure to the fundamentals, emerging trends, and recent technological advancements in signal processing, audio and video processing, Very Large-Scale Integration (VLSI), artificial intelligence, semiconductor technologies, and next-generation communication systems.

Through expert sessions delivered by distinguished academicians, researchers, and industry professionals, the programme aims to bridge the gap between academic research and industrial applications while encouraging interdisciplinary collaboration, innovation, and technological advancement. It provides a platform for faculty members and researchers to explore state-of-the-art technologies, identify emerging research opportunities, and develop innovative solutions that contribute to resilient infrastructure, sustainable industrialization, and technological progress.

SDG alignment 4 9 8 17

02 Orientation Program for Samsung Learners



The Orientation Programme for Samsung Learners enrolled in the Fast Track Course on Industrial Automation and Control 2026 was successfully organized on 30 April 2026. Conducted in collaboration with Samsung Pvt. Ltd., the programme marked the formal commencement of an industry-integrated learning initiative for 20 students, aimed at strengthening technical competencies, promoting industrial innovation, and enhancing practical skills in automation and control systems in alignment with Sustainable Development Goal 9 (SDG 9): Industry, Innovation and Infrastructure.

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The orientation focused on bridging the gap between academic learning and evolving industrial requirements by familiarizing participants with the course structure, learning objectives, evaluation methodology, and hands-on training approach. Emphasis was placed on developing industry-relevant skills, strengthening technological capabilities, and preparing students to contribute to modern industrial processes, intelligent automation, and advanced manufacturing systems. The initiative highlighted the importance of industry–academia collaboration in fostering innovation, improving employability, and supporting technology-driven industrial development.

SDG alignment 4 8 9 17

03 Bootcamp: RTL, IP Integration and SoC Signoff



The Department of Electrical, Electronics & Communication Engineering (DEECE), Galgotias University, organized a five-day (30-hour) in-campus bootcamp titled “RTL, IP Integration and SoC Signoff” from 5 to 9 May 2026. The programme was conducted under the Ministry of Electronics and Information Technology (MeitY)-funded project, “Development of EdTech Platform in Semiconductor Space to Democratize Chip Design and Development Ecosystem for Masses.” The initiative aimed to strengthen semiconductor design education, promote technological innovation, and enhance practical competencies in advanced chip design and development, in alignment with Sustainable Development Goal 9 (SDG 9): Industry, Innovation and Infrastructure.

The bootcamp emphasized experiential learning through open-source Electronic Design Automation (EDA) tools and practical training in Register Transfer Level (RTL) design, Intellectual Property (IP) integration, and System-on-Chip (SoC) signoff methodologies. By introducing participants to contemporary semiconductor design practices and accessible technological tools, the programme sought to bridge the gap between academic knowledge and industry requirements. It also highlighted the importance of democratizing semiconductor education, developing technical expertise, and strengthening the innovation ecosystem through accessible, research-oriented learning opportunities.

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04 Technical Webinar on “Miniature Microsystems for Space Applications”



The Department of Electrical, Electronics & Communication Engineering (DEECE), Galgotias University, in collaboration with the IEEE Industry Applications Society (IAS) Chapter, organized a technical webinar on 23rd August, 2025, titled “Miniature Microsystems for Space Applications” to commemorate National Space Day 2025. The initiative aimed to promote scientific research, technological innovation, and awareness of emerging space technologies in alignment with Sustainable Development Goal 9 (SDG 9): Industry, Innovation and Infrastructure. The webinar provided an interactive platform for students and faculty members to explore advancements in miniature microsystems, semiconductor technologies, and their applications in modern space missions.

The session was delivered by Dr. Deepak Kumar Sharma, a distinguished academician and former ISRO scientist, who shared valuable insights into Micro-Electro-Mechanical Systems (MEMS), miniature electronic systems, and their applications in spacecraft, satellites, and aerospace engineering. The discussion highlighted the significance of advanced microsystems in navigation, communication, payload monitoring, and space-grade electronics, emphasizing how technological miniaturization contributes to improved efficiency, precision, and innovation in space exploration. Participants also gained insights into spacecraft design, satellite technologies, India's contributions to the global space sector, and emerging opportunities for interdisciplinary research and technological development.

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05 One Day Online Seminar on Intellectual Property Rights (IPR)

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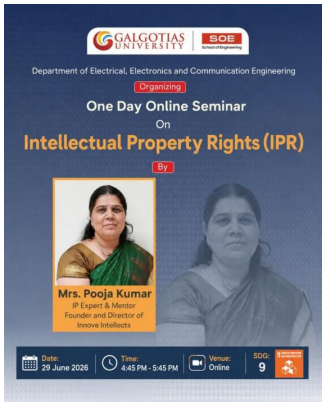
The Department of Electrical, Electronics & Communication Engineering (DEECE), Galgotias University, successfully organized a One-Day Online Seminar on Intellectual Property Rights (IPR) to provide valuable insights into patents, copyrights, trademarks, designs, and the practical aspects of protecting intellectual property. The Seminar aimed to gain practical knowledge and a deeper appreciation of the importance of IPR in academia, research, industry, and entrepreneurship through engaging and interactive learning sessions.



The Seminar provided an excellent platform for participants to create awareness among students, faculty members, researchers, and innovators about the importance of Intellectual Property Rights, including patents, copyrights, trademarks, industrial designs, and the protection of innovative ideas.

The programme concluded with an interactive discussion, during which participants shared their learning experiences and clarified their queries with the resource person. The Department of Electrical, Electronics & Communication Engineering expressed its sincere gratitude to Mrs. Pooja Kumar for her valuable contribution and inspiring session. The workshop was highly successful in promoting effective knowledge, and importance of IPR among the participants.

The interactive session encouraged students to reflect on their individual strengths, identify skill gaps, and take proactive steps towards career readiness. Discussions also highlighted the importance of integrity, transparency, mutual respect, accountability, and ethical leadership in building trustworthy professional relationships and responsible organizational environments.

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06 Advanced drone system training program

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Galgotias University, through its Department of Electrical, Electronics & Communication Engineering under the Centre for Drone Intelligence & Simulation (CDIS), organized a 3-Day Advanced Drone System Training Program in collaboration with Drone Destination from 16th April to 18th April 2026. The program aimed to bridge the gap between academic learning and industry requirements by providing practical training in modern drone technologies. The sessions were conducted by industry experts from Drone Destination, Mr. Nikhil Mishra, Master RPI Instructor, and Mr. Anil, System Engineer.

During the training, students and faculty members were introduced to advanced drone platforms including the Hybrid VTOL-DD500 Mapping Drone, Sky Master Surveillance Drone, and Agristar Agriculture Drone. The sessions covered drone architecture, flight control systems, sensor integration, payload systems, communication modules, troubleshooting, calibration, and maintenance practices.

Special emphasis was placed on hands-on learning, where participants gained practical exposure to drone operations, pre-flight inspections, safety protocols, mission planning, and application-based deployment methods. Live demonstrations of mapping, surveillance, and agricultural spraying operations were also conducted.

The trainers also highlighted growing career opportunities and applications of drones in agriculture, logistics, surveying, surveillance, and infrastructure inspection. The program proved highly beneficial for students and faculty members and reinforced Galgotias University's commitment to industry-oriented education, innovation, and skill development in emerging technologies.

SDG alignment 4 9 11

07 Bridging Research and Industry: Process Optimization and Scale-Up in Pharmaceuticals

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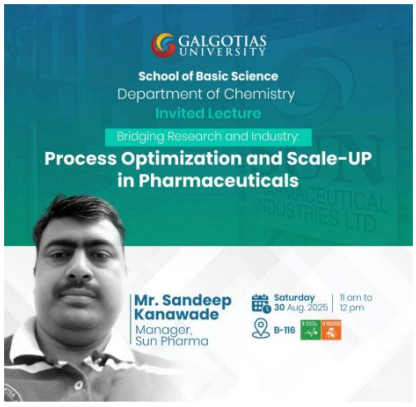
The Department of Chemistry, School of Basic Sciences, Galgotias University, organized an invited lecture on "Bridging Research and Industry: Process Optimization and Scale-Up in Pharmaceuticals" on 30 August 2025. The session was delivered by Mr. Sandeep Kanawade, Manager at Sun Pharma, Gurugram, who shared insights from nearly two decades of industrial experience in the development and manufacturing of generic Active Pharmaceutical Ingredients (APIs).



The lecture focused on bridging the gap between academic research and industrial applications, with particular emphasis on synthesis route screening, process optimization, pharmaceutical scale-up, polymorph screening, and industrial troubleshooting. The session provided students and faculty members with insights into pharmaceutical manufacturing processes, technological challenges, and the importance of translating laboratory-scale research into commercially viable industrial applications.

SDG alignment 3 9

08 SciBridge: Connecting Students with Industry

The School of Basic Sciences, Galgotias University, under the aegis of the GU-Scientia Club, successfully organized "SciBridge: Connecting Students with Industry" on 22 May 2026. Centered around the theme "Bridging Academia and Industry through Peer Learning," the event brought together undergraduate and postgraduate students for an engaging and insightful interaction with industry professionals from the pharmaceutical sector.



The session was designed to provide students with practical exposure to the workings of the scientific industry and to bridge the gap between classroom learning and real-world professional practice. The event featured two expert speakers whose talks offered valuable perspectives on pharmaceutical research, drug development, and career pathways in industry.

The first speaker, Mr. S. Vijaya Bhaskara Reddy, Principal Scientist in Process Research and Development at Chemveda Life Sciences India Pvt. Ltd., shared his extensive experience in

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pharmaceutical process research and development. He gave students an inside view of how industrial process R&D functions in the pharmaceutical sector, explaining the scientific and practical considerations involved in the development of new drug molecules.

SDG alignment 4 8 9

09 Aligning Advanced Drug Delivery of Phytoceuticals with sustainability Goals

Dr. Kamal Dua, Professor at Western Sydney University, Sydney, Australia, delivered an expert lecture titled “Aligning Advanced Drug Delivery of Phytoceuticals in Lung Diseases” at the Department of Pharmacy, School of Medical and Allied Sciences.



The lecture provided valuable insights into recent advancements in phytoceutical-based drug delivery systems for the management of respiratory disorders. Dr. Dua discussed innovative approaches for enhancing the bioavailability, targeted delivery, and therapeutic efficacy of phytoconstituents in lung diseases through advanced drug delivery technologies such as nanoparticles, liposomes, and inhalation-based systems. He also highlighted current research trends, translational opportunities, and future prospects in pulmonary drug delivery. The session was highly interactive and enriched the knowledge of faculty members, research scholars, and students by bridging the gap between academic research and clinical applications in respiratory healthcare.

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10 Student Development Program – Ethical Hacking & Digital Forensic Tools Using AI Techniques

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The School of Computer Applications and Technology (SCAT), Galgotias University organized a 5-Day Student Development Program on Ethical Hacking & Digital Forensic Tools Using AI Techniques from 02 February to 06 February 2026. The objective of the workshop was to provide students with practical knowledge of cyber security, ethical hacking methodologies, and digital forensic investigation tools.

During the workshop, students were introduced to various concepts such as network security, vulnerability assessment, penetration testing, malware analysis, and digital evidence investigation. The sessions included interactive discussions, practical demonstrations, and hands-on activities that allowed students to explore modern cyber security tools and technologies.

The program also highlighted the role of Artificial Intelligence in cyber security, explaining how AI-based techniques can be used to detect anomalies, analyze threats, and improve digital defense systems. Participants actively engaged in learning how cyber-attacks occur and how ethical hackers identify and resolve system vulnerabilities.

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11 Summer School on Scientific Innovation

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The Summer School on Scientific Innovations was successfully organized from 21st to 25th July 2025, offering an intensive and immersive five-day hands-on training program in key areas of pharmaceutical sciences and biomedical research. Hosted with great enthusiasm and academic rigor, the program brought together participants from various institutions including Central University of Haryana, Sharda University, GIMS Gautham Budhh Nagar, Mangalayatan University, University of Glasgow etc. and backgrounds, all keen to enhance their knowledge and practical skills in pharmaceutical tools, cancer biology, modern analytical techniques, drug design, and scientific writing. The event was distinguished by the participation of eminent resource persons from Galgotias University, who shared their expertise and insights across various specialized domains. Each day of the program was structured to include two sessions, ensuring a balanced yet comprehensive exposure to both theoretical foundations and hands-on practices.

The sessions were thoughtfully curated to facilitate active engagement, learning, and collaboration. The morning sessions typically began with conceptual overviews and foundational discussions, while the afternoon sessions were devoted to practical demonstrations, interactive workshops, and real-time applications of the tools and techniques discussed earlier. This dual-format approach not only helped reinforce the understanding of complex topics but also allowed participants to gain confidence in applying these concepts in real-world research scenarios.

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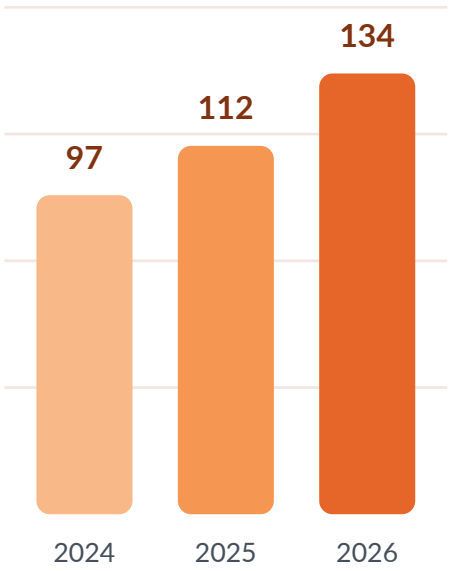
YEAR-ON-YEAR PERFORMANCE | 2024-2026

Activity and publication figures are reproduced from the supplied 2025-26 SDG 9 annual report.

GU EVENTS



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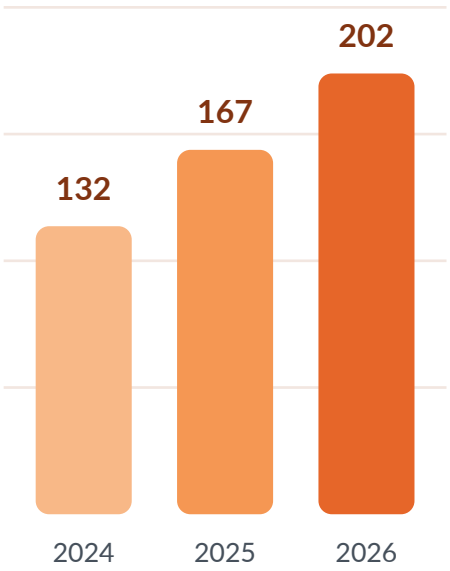
GU PUBLICATIONS



Source: uploaded SDG 9 annual report

2025 to 2026: Events 112 → 134 (+22); Publications 167 → 202 (+35).

The report presents institutional activities described in the supplied source document; event descriptions have not been independently verified.