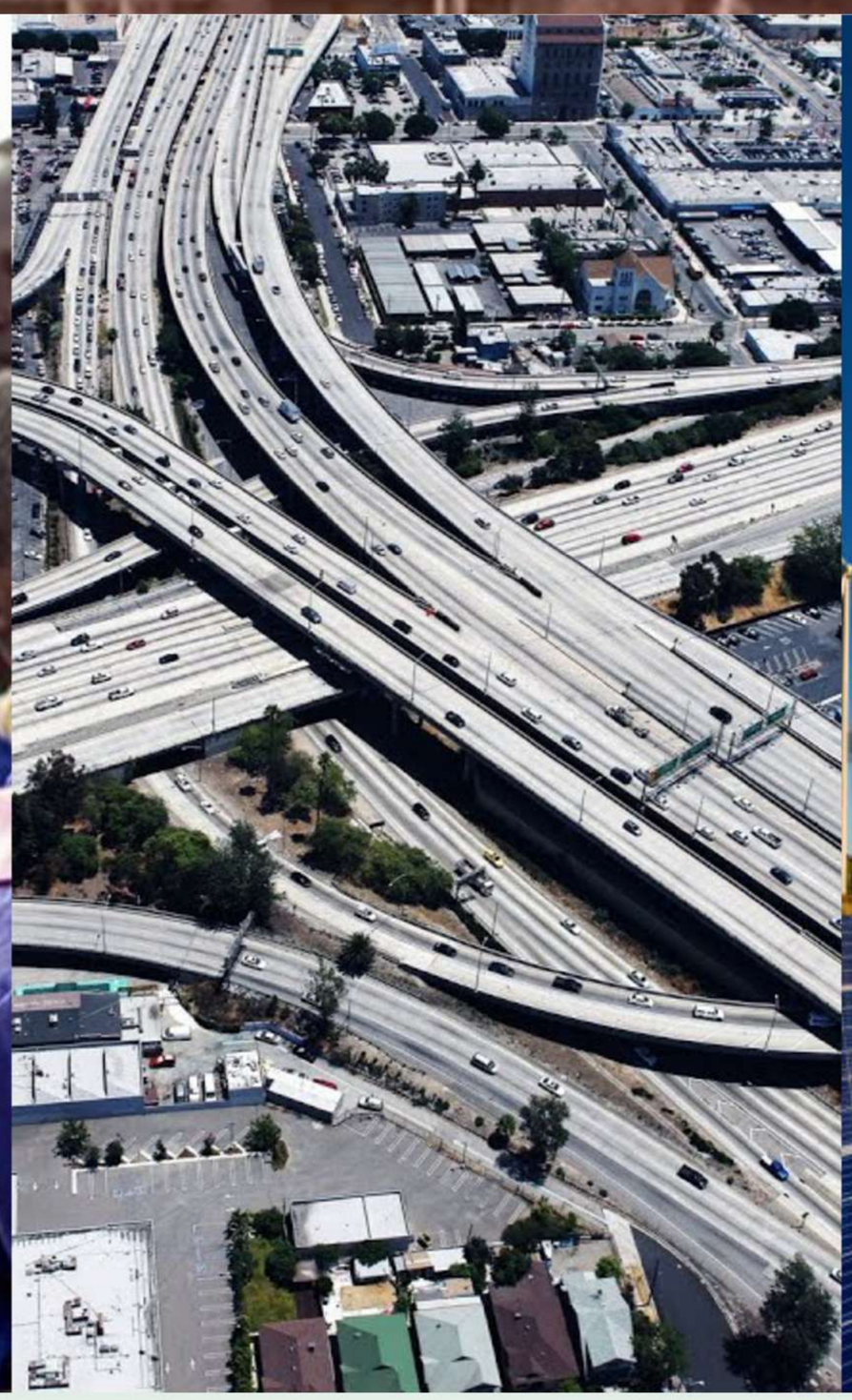
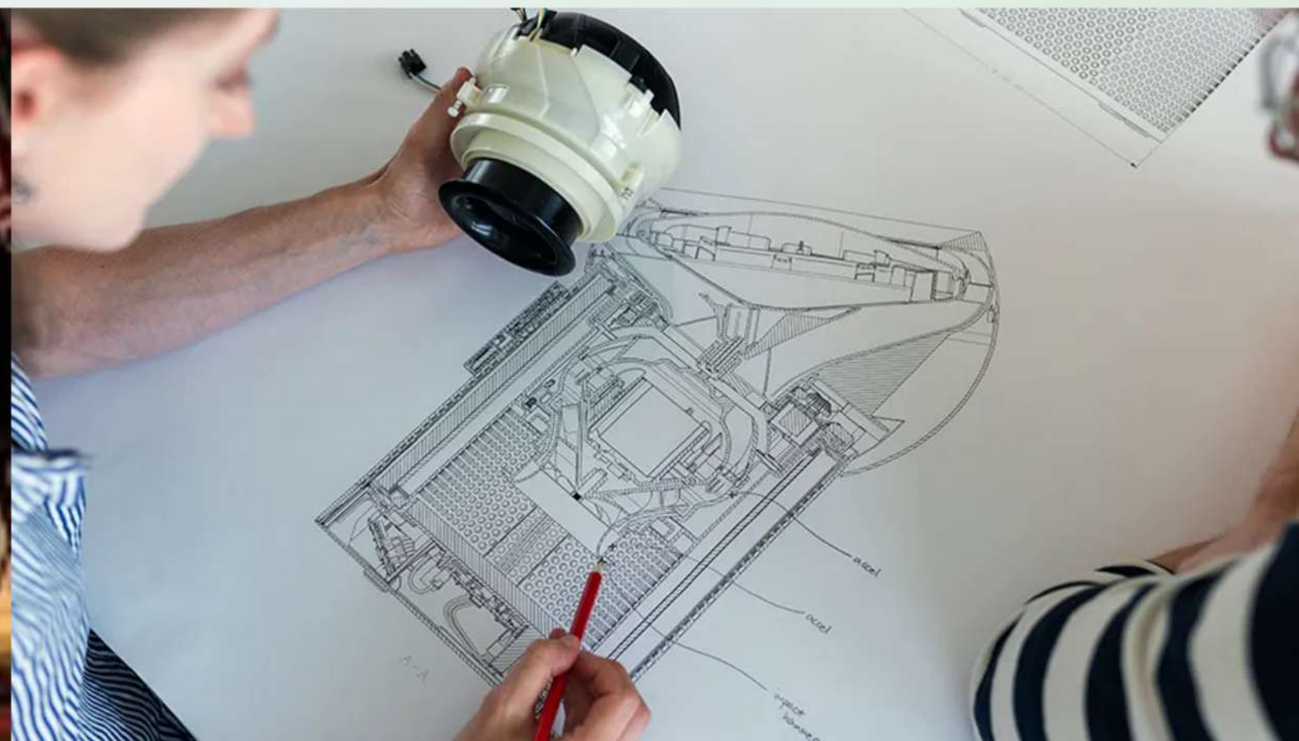


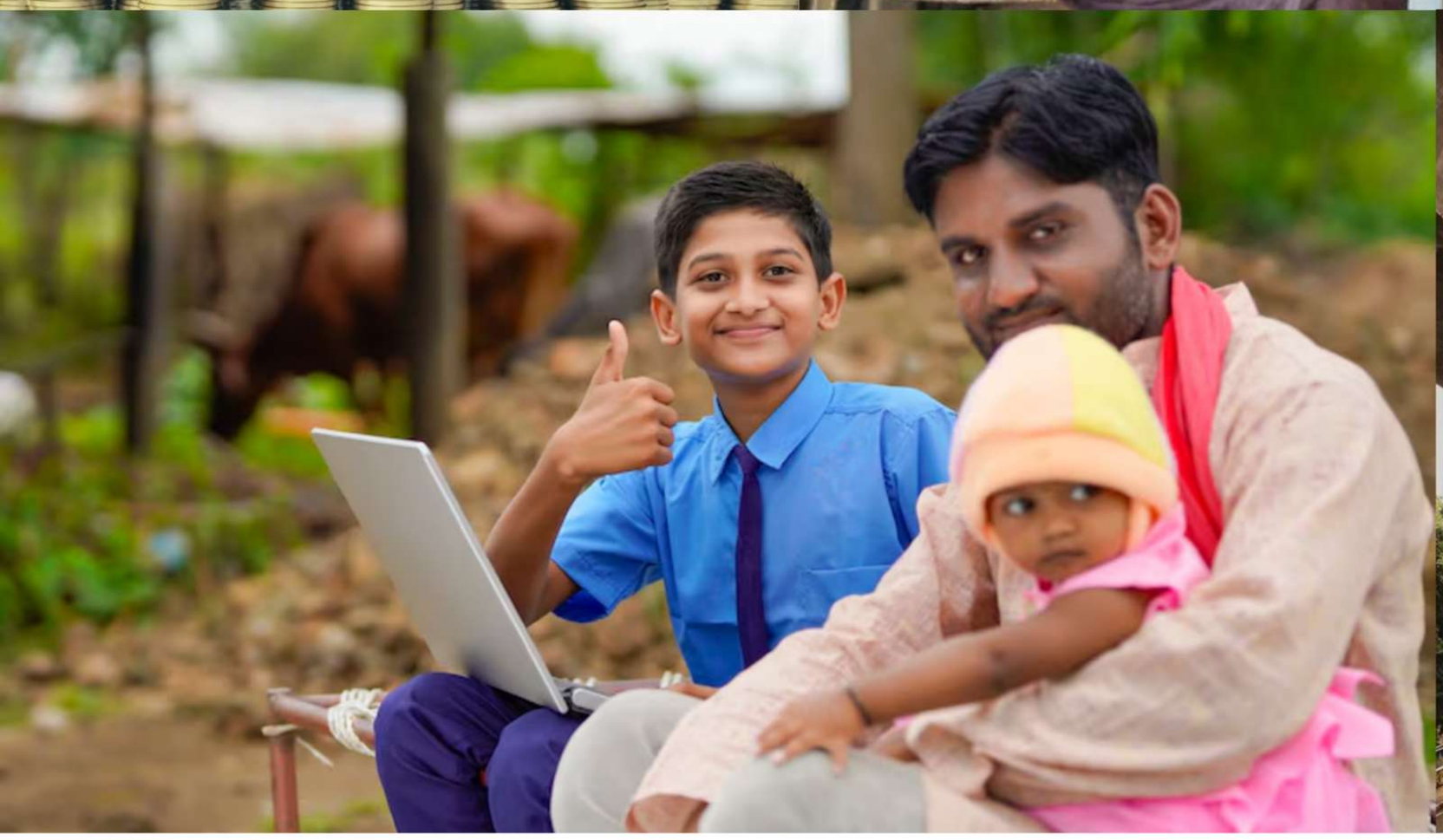
NIMS UNIVERSITY RAJASTHAN, Jaipur

United Nations Sustainable Development Goals

GOAL NO. 9

Industry, Innovation And Infrastructure





Most major industrial sectors in India consume 25% to 100% more energy than the global best practices

Chancellor's Message

> **Innovation is the engine of growth, and infrastructure is the foundation upon which we build a sustainable future.**

Dear Youth of a Developed India,

As we stand at the threshold of unprecedented change, our commitment to SDG 9 – Industry, Innovation, and Infrastructure – has never been more critical. The development of resilient infrastructure, the promotion of inclusive and sustainable industrialization, and building innovation are not mere aspirations but urgent necessities.

In India, the challenges are immense yet surmountable. Our country faces hurdles in infrastructure development, with approximately 30% of its population lacking access to reliable electricity. The manufacturing sector, a foundation of economic growth, contributes only about 15% to the GDP, far below its potential. There are striking disparities in access to technology and internet connectivity, which are a must for driving innovation and competitiveness in a globalized world. There is an urgency to adopt and implement SDG 9. India needs an estimated $1.5 trillion investment in infrastructure by 2030 to bridge the gap and meet the demands of its growing population. Despite being one of the fastest-growing economies, India's industrial sector is hampered by outdated technologies and a lack of skilled workforce, affecting productivity and growth. India ranks 46th in the Global Innovation Index 2021, reflecting the need for greater investment in research and development and creating an environment that nurtures innovation and entrepreneurship.

Addressing these challenges requires a collaborative effort across all sectors of society. NIMS is playing its part in this transformation. By developing a culture of innovation, advancing research in sustainable technologies, and evolving curricula that equip our students with the necessary skills, we can contribute to achieving SDG 9. Let us implement our collective intellect and creativity to build a resilient, inclusive, and sustainable future. The time to act is now; we can drive India towards a more prosperous and unbiased future.

Prof. (Dr.) Balvir S. Tomar
Founder & Chancellor
NIMS University Rajasthan, Jaipur

NIMS UNIVERSITY
RAJASTHAN, JAIPUR

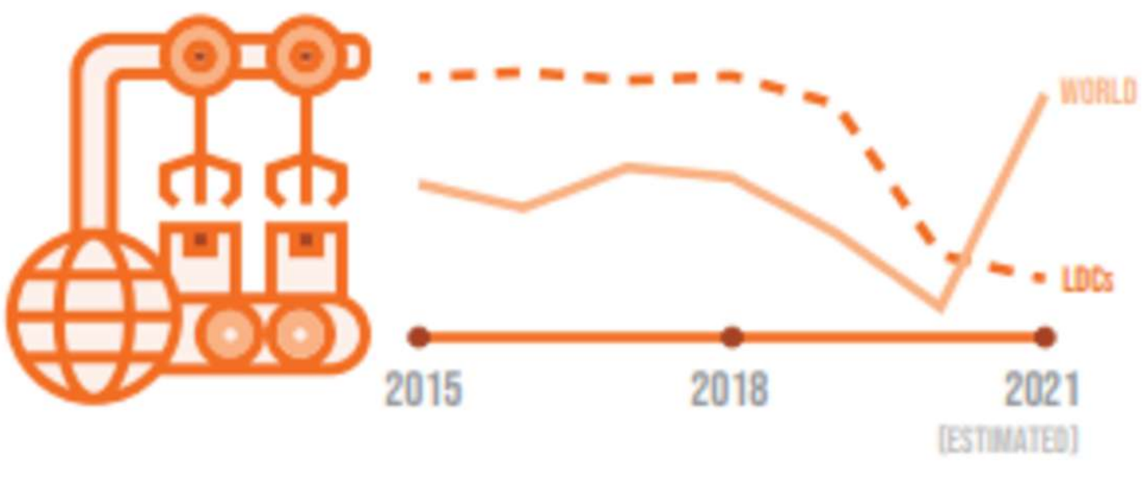
UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP

Global Statistics

GLOBAL MANUFACTURING HAS REBOUNDED FROM THE PANDEMIC

BUT LDCs ARE LEFT BEHIND

MANUFACTURING GROWTH

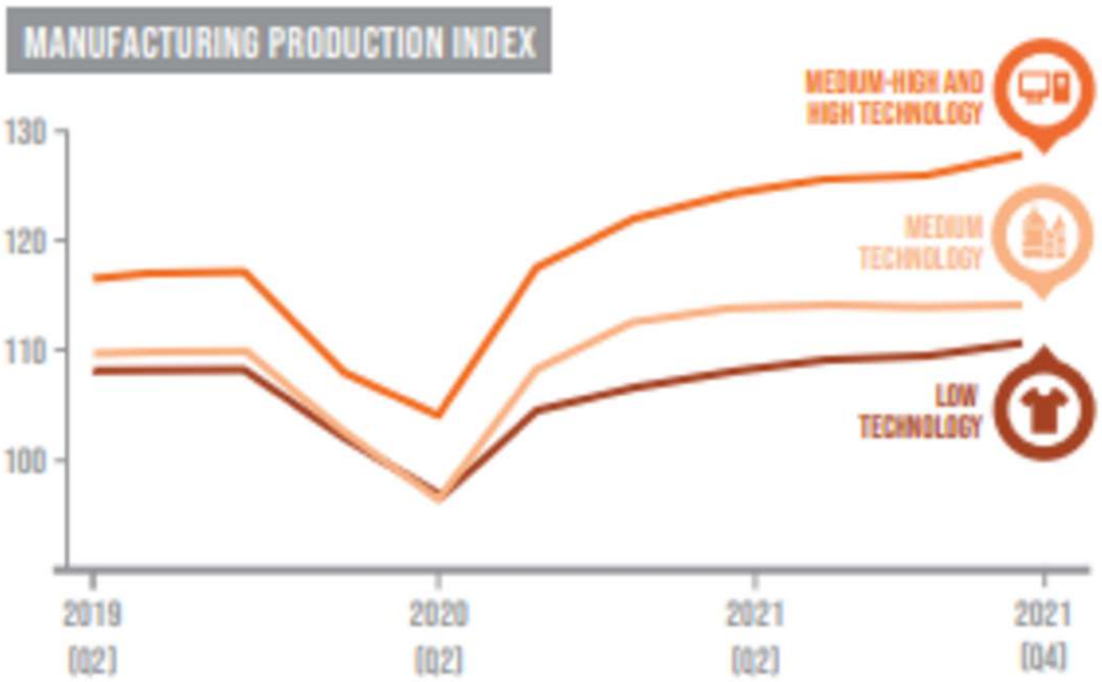


HIGHER-TECHNOLOGY INDUSTRIES

ARE FAR MORE RESILIENT IN CRISES

THAN THEIR LOWER-TECH COUNTERPARTS

MANUFACTURING PRODUCTION INDEX



SMALL-SCALE INDUSTRIES

LACK ACCESS TO FINANCIAL SUPPORT FOR RECOVERY

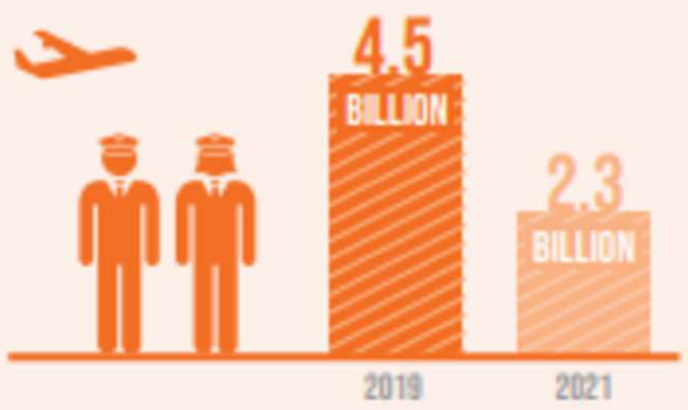
ONLY 1 IN 3 SMALL MANUFACTURERS

ARE BENEFITING FROM A LOAN OR LINE OF CREDIT

(2020-2021)

PASSENGER AIRLINE INDUSTRY IS STILL STRUGGLING TO

RECOUP CATASTROPHIC LOSSES



2.3 BILLION PASSENGERS IN 2021,
COMPARED WITH **4.5 BILLION** IN 2019

1 IN 3 MANUFACTURING JOBS

ARE **NEGATIVELY IMPACTED** BY THE CRISIS

NIMS UNIVERSITY
RAJASTHAN, JAIPUR

UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP

Global Statistics

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

Inclusive and sustainable industrialization, combined with innovation and infrastructure, can ignite dynamic and competitive economic forces that create jobs and generate income. They are crucial in introducing and advancing new technologies, facilitating international trade, and enabling efficient resource use. Yet, the global community has much work to do to fully realize this potential. Least developed countries, in particular, must accelerate their manufacturing sector development and significantly increase investment in scientific research and innovation to meet the 2030 targets.

Global manufacturing growth has been on a steady decline, a trend that began even before the COVID-19 pandemic, which has severely impacted manufacturing industries and disrupted global value chains. Innovation and technological progress are essential for finding lasting solutions to economic and environmental challenges, such as enhancing resource and energy efficiency. While global investment in research and development (R&D) as a percentage of GDP increased from 1.5% in 2000 to 1.7% in 2015 and remained relatively stable through 2017, it remained below 1% in developing regions.

In terms of communications infrastructure, over half of the world's population is now online, and nearly the entire global population lives in areas covered by mobile networks, with 96.5% covered by at least a 2G network in 2019.

The COVID-19 pandemic has highlighted the urgent need for resilient infrastructure. The Asian Development Bank points out that critical infrastructure remains insufficient in many countries, despite the region's rapid economic growth over the past decade. The Economic and Social Survey of Asia and the Pacific indicates that making infrastructure resilient to disasters and climate change will require an additional $434 billion per year, with even higher needs in certain subregions like the Pacific small island developing states.

Introduction

The Sustainable Development Goals (SDGs), also known as Global Goals, are a set of 17 integrated and interrelated goals to end poverty, protect the planet and ensure that humanity enjoys peace and prosperity by 2030.

India is home to more than a quarter of the hungry people in the world. The effect of climate change on agriculture will adversely affect Indian agriculture, thereby making food availability scarce. The existing production levels barely manage to keep pace with the growing population, a problem that is aggravated by high disparities in resources and purchasing power.

The changing scenario of rising food prices has raised new concerns about food security. It has been estimated that globally 130 million more people have become food insecure due to high food prices, climate change, and war zones in addition to the existing 850 million.

Soaring prices would require providing top priority to ensuring access to food by the most vulnerable, which can be achieved through expanded safety net programs such as the PDS, and those programs which address the nutritional status of pregnant and lactating women, and children of less than five years of age.

Global Centre for Sustainable Development Goals

NIMS University has taken a significant step towards global sustainability with the launch of the Global Centre for Sustainability Development (GCSD).

This unfolding initiative demonstrates the university's ambition to bring about positive change on a global scale. The aim is to ensure a holistic and inclusive approach to development, leaving no one behind and creating a sustainable future for all.

Through research, education, awareness, and community engagement, Nims is determined to contribute to the nation's comprehensive growth.

Overview of SDG Goal 9 Report: Challenges, Actions, and Future Prospects

Sustainable Development Goal 9 (SDG 9) focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation, which are vital for economic growth and improving living standards, especially in developing regions. Currently, 2.6 billion people in the developing world face difficulties accessing reliable electricity, and around 2.5 billion lack basic sanitation. Manufacturing plays a crucial role in employment, accounting for over half a billion jobs globally, with a positive job multiplication effect in other sectors. However, infrastructure constraints significantly impact productivity in many lower-income African countries. India exemplifies the balance between growth and low emissions, with a robust growth rate of 7.25% over the last five years and CO2 emissions per capita among the lowest globally. Addressing these challenges and leveraging opportunities in industrial processing and agribusiness can drive sustainable and inclusive economic development.

Challenges of Goal No. 9

- Approximately 2.6 billion people in the developing world struggle with reliable electricity access.
- 2.5 billion people lack basic sanitation, and nearly 800 million lack access to clean water, particularly in Sub-Saharan Africa and South Asia.
- In many lower-income countries, infrastructure limitations reduce firm productivity by around 40%.
- The quality of trade and transport infrastructure remains stagnant at a rating of 2.91 out of five.
- Manufacturing growth has stalled, with India's industrial growth rate decreasing by 0.8% from 2016 to 2019.
- Indian industries produce significant hazardous and water waste, conflicting with sustainability goals.
- Investment in research and development remains low at 0.6% to 0.7%, with minimal improvement.
- The publication of scientific and technical journal articles is low, with a ranking of 0.10 in 2018 compared to 0.9 in 2017, aiming for 1.2.
- Nuclear technology, nanotechnology, and the technology-driven Green Revolution have high growth potential but require increased public sector investment in R&D.

NIMS UNIVERSITY
RAJASTHAN, JAIPUR

UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP

Overview of SDG Goal 9 Report: Challenges, Actions, and Future Prospects

GLOBAL MANUFACTURING

GROWTH SLOWED FROM

2021 7.4%

2022 3.3%

DUE TO

- INFLATION
- ENERGY PRICE SHOCKS
- SUPPLY DISRUPTIONS
- GLOBAL ECONOMIC DECELERATION

ENERGY-RELATED

CO_2 EMISSIONS

REACHED

36.8 BILLION

METRIC TONS IN 2022

A RECORD HIGH

MEDIUM-HIGH AND HIGH-TECHNOLOGY INDUSTRIES EXPERIENCED

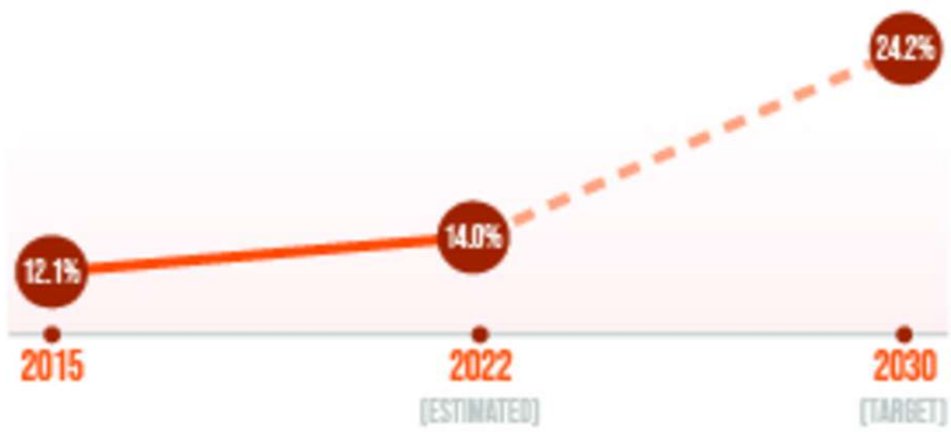
STRONG GROWTH IN 2022

BUT WITH REGIONAL VARIATION

SHARE IN TOTAL MANUFACTURING

LDCs ARE LIKELY TO MISS THEIR 2030 TARGET OF DOUBLING MANUFACTURING SHARE OF GDP

MANUFACTURING VALUE AS A SHARE OF GDP IN LDCs



95% OF THE WORLD

HAS MOBILE BROADBAND ACCESS (3G OR HIGHER) (2022)

BUT COVERAGE IS ONLY 82% IN SUB-SAHARAN AFRICA AND 68% IN OCEANIA*

Overview of SDG Goal 9 Report: Challenges, Actions, and Future Prospects

Future Prospects of Goals of SDG 9

Establish high-quality, reliable, sustainable, and resilient infrastructure, including regional and trans-border networks, to bolster economic growth and human well-being, focusing on affordable and equitable access for all.

Promote inclusive and sustainable industrialization to significantly increase industry's share of employment and GDP by 2030, tailored to national contexts, and double its contribution in least developed countries.

Expand access to financial services, including affordable credit, for small-scale industrial and other enterprises in developing countries, integrating them into value chains and markets.

By 2030, upgrade infrastructure and retrofit industries to enhance sustainability, improving resource-use efficiency and adopting clean, environmentally sound technologies and processes, with actions aligned to each country's capabilities.

Boost scientific research and technological capabilities in industrial sectors globally, especially in developing countries, by 2030. This includes encouraging innovation and significantly increasing R&D workers per million people and R&D spending from both public and private sectors.

Promote sustainable and resilient infrastructure development in developing nations through increased financial, technological, and technical support, focusing on African countries, least developed countries, land-locked developing countries, and small island developing states.

Support the development of domestic technology, research, and innovation in developing countries by creating favorable policy environments for industrial diversification and value addition to commodities.

Substantially increase access to information and communications technology, striving for universal and affordable Internet access in least developed countries by 2020.

Why does it Matter?

Why is this important?

Investment in transport, irrigation, energy, and information and communications technology has been essential for driving economic growth and empowering communities in many countries. Industrialization's job multiplication effect positively impacts society, as each manufacturing job generates 2.2 jobs in other sectors. The manufacturing sector is a significant employer, providing around 470 million jobs globally in 2009, which is approximately 16% of the world's 2.9 billion-strong workforce. A robust network of industry and communication has long been known to boost productivity and income, as well as enhance health, well-being, and education. Additionally, technological advancements improve national well-being and can benefit the planet by increasing resource and energy efficiency.

Industrialization's job multiplication effect has a positive impact on society. Every ONE in manufacturing creates 2.2 jobs in other sectors.

How can we address this?

Through SDG 9, countries have identified that investing in resilient infrastructure, fostering cross-border cooperation, and supporting small enterprises are crucial for sustainable industrial development. Enhancing existing industrial infrastructure will also be necessary, with technological innovation playing a vital role. Governments and businesses must create supportive policy environments for innovation, promote scientific research, and ensure universal access to information technology.

Goal No. 9 Targets

Targets of SDG 9

- **9.1**: Develop quality, reliable, sustainable, and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human wellbeing, focusing on affordable and equitable access for all.

- **9.2**: Promote inclusive and sustainable industrialization and significantly increase industry's share of employment and GDP by 2030, in line with national contexts, and double its share in the least developed countries.

- **9.3**: Enhance access to financial services, including affordable credit, for small-scale industrial and other enterprises, particularly in developing countries, and integrate them into value chains and markets.

- **9.4**: Upgrade infrastructure and retrofit industries by 2030 to make them sustainable, improving resourceuse efficiency and adopting clean and environmentally sound technologies and industrial processes, with actions tailored to each country's capabilities.

- **9.5**: Boost scientific research and technological capabilities in industrial sectors globally, especially in developing countries, by encouraging innovation and significantly increasing the number of R&D workers per million people and R&D spending from public and private sectors by 2030.

- **9.A**: Facilitate the development of sustainable and resilient infrastructure in developing countries through enhanced financial, technological, and technical support to African countries, least developed countries, landlocked developing countries, and small island developing states.

- **9.B**: Support domestic technology development, research, and innovation in developing countries by creating a favorable policy environment for industrial diversification and adding value to commodities.

- **9.C**: Significantly increase access to information and communications technology and strive to provide universal and affordable Internet access in least developed countries by 2020.

SDG 9 for India

The 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development, which came into effect on January 1, 2016, aim to create a better world without environmental harm by 2030. SDG 9 focuses on building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. India, a key player in the global effort to achieve these goals, is making significant strides in implementing SDG 9.

India's Current Situation

India has made notable progress towards SDG 9, but challenges remain. The country has experienced substantial economic growth, with an average growth rate of 7.25% over the last five years. However, the industrial sector, which employs a significant portion of the workforce, needs further development to keep pace with global standards. India's per capita CO2 emissions are among the lowest globally, reflecting its commitment to sustainable growth. Despite these achievements, there is still a need for improved infrastructure, enhanced innovation, and sustainable industrial practices to fully realize SDG 9.

Challenges with Industry Infrastructure, and Innovation

India faces significant challenges in industry and infrastructure. The quality of trade and transport infrastructure has stagnated, with a steady ranking of 2.91 out of five. The manufacturing sector, a critical contributor to economic prosperity, has not seen significant growth, with the industrial growth rate decreasing by 0.8% from 2016 to 2019. Additionally, Indian industries generate substantial hazardous and water waste, contradicting sustainability goals. Infrastructure constraints, particularly in lower-income regions, reduce firm productivity by around 40%, further highlighting the need for substantial improvements.

Innovation is crucial for achieving SDG 9, yet India's expenditure on research and development remains low at 0.6% to 0.7% of GDP. The number of scientific or technical journal articles published has decreased, reflecting a need for increased investment in R&D. Fields like nuclear technology, nanotechnology, and the technology-driven Green Revolution offer massive growth potential but require more substantial public sector support. Enhancing scientific research and technological capabilities is essential for fostering innovation and sustainable industrial development.

SDG 9 for India

Improvements in Innovation, Infrastructure, and Industry

Despite these challenges, India has made significant progress in several areas. Education and universities play a vital role in driving innovation, with India's top three universities scoring 44.9 in the World University Rankings, nearing the goal of 50. Internet accessibility has improved, with usage growing from 17% in 2015 to 34.45% in 2017, doubling since the implementation of the SDGs. Infrastructure development has seen considerable success, particularly in rural areas, with 70% of targeted rural regions gaining access to all-weather roads by 2017. The construction of national highways more than doubled from 2015 to 2019, and the capacity of 12 significant ports improved by 84%, enhancing trade potential.

To meet SDG 9, India has focused on easing business entry and growth, resulting in a significant improvement in the World Bank's Ease of Doing Business ranking, from 142nd in 2015 to 63rd in 2019. The number of design patents quadrupled from 2015 to 2019, indicating robust industrial growth. These strides reflect India's commitment to fostering innovation, enhancing infrastructure, and promoting sustainable industrialization.

Conclusion

Overall, India has made remarkable progress towards achieving SDG 9, with significant improvements in infrastructure, industry, and innovation. The country has maintained a robust economic growth rate while keeping per capita carbon emissions low. However, continued efforts are needed to address existing challenges and fully realize the potential of SDG 9. By fostering innovation, upgrading infrastructure, and promoting sustainable industrial practices, India can achieve inclusive and sustainable industrial development, contributing to a better future for all.

National Institute of Medical Sciences and Research

Visit Overview

On July 31, 2024, NIMS University (Medical College) conducted a community outreach activity in Village Rajpur vas tala, Tehseel Jamwa Ramgarh, District Jaipur, focusing on Sustainable Development Goal (SDG) 9, which aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.

Background

SDG 9 emphasizes the importance of encouraging innovation and developing sustainable and inclusive industrialization. NIMS University has committed to these principles by engaging local communities in discussions about viable small-scale business opportunities that require minimal investment and offer substantial benefits.

National Institute of Medical Sciences and Research

Purpose

The primary objective of this visit was to educate the village community on recent trends in small-scale industries, highlighting feasible and profitable business opportunities that could drive local economic growth and infrastructure development.

Activities

1. Advisory Sessions:

- The faculty members, staff, and students of NIMS University advised the village chief and residents on various small-scale business ideas, such as manufacturing paper plates, footwear, snacks, and alkaline water. These businesses were chosen for their low investment requirements and suitability for the village environment.
- Contact details of relevant manufacturers and suppliers were provided to the village chief to facilitate the establishment of these businesses.

2. Resource Sharing:

Distributed a list of mobile and WhatsApp numbers for suppliers of equipment and materials needed for starting small-scale industries, including:

- Namkeen/Kurkura making and packing machines
- Rubber footwear-making machines
- Paper/biodegradable material plates and dishes making machines
- Sanitary napkin dealership/wholesale
- Tea dealership/wholesale/Franchise
- Alkaline water-making kits

National Institute of Medical Sciences and Research

Observation

The village residents showed considerable interest in the small-scale business opportunities presented. The advisory sessions provided them with practical knowledge and resources needed to embark on these ventures. The provision of contact details for suppliers further empowered the community to take actionable steps towards establishing new businesses.

Conclusion

The initiative effectively promoted the principles of SDG 9 by encouraging sustainable industrialization and innovation in Village Rajpur vas tala. By equipping the community with the necessary knowledge and resources, NIMS University has laid the groundwork for future economic growth and development. Follow-up visits and continued support will be essential to ensure the success and sustainability of these new business ventures.

NIMS Institute of Engineering & Technology

Visit Overview

On 26th June 2024, the Department of Electrical, Electronics, and Electric Vehicle Engineering and the Department of Applied Sciences, Chemistry at NIMS University, Rajasthan, organized an SDG 9 awareness program. Held at Govt. Senior Secondary School, Chandwaji, the event aimed to educate the local community and school staff on the importance of sustainable industrialization and infrastructure development. The program attracted 20 participants, including school staff and villagers, and focused on raising awareness about renewable energy and its role in sustainable community development.

Background

In alignment with SDG 9: Industry, Innovation, and Infrastructure, the program was designed to promote awareness of the need for sustainable industrialization to build resilient infrastructure and encourage innovation. India's growing focus on renewable energy highlights the importance of educating local communities about the advantages of transitioning to sustainable energy solutions. The departments of Chemistry and Electrical, Electronics, and Electric Vehicle Engineering at NIMS University Rajasthan collaborated to engage with rural communities in Chandwaji, underscoring the significance of renewable energy projects at both individual and community levels.

NIMS Institute of Engineering & Technology

NIMS Institute of Engineering & Technology

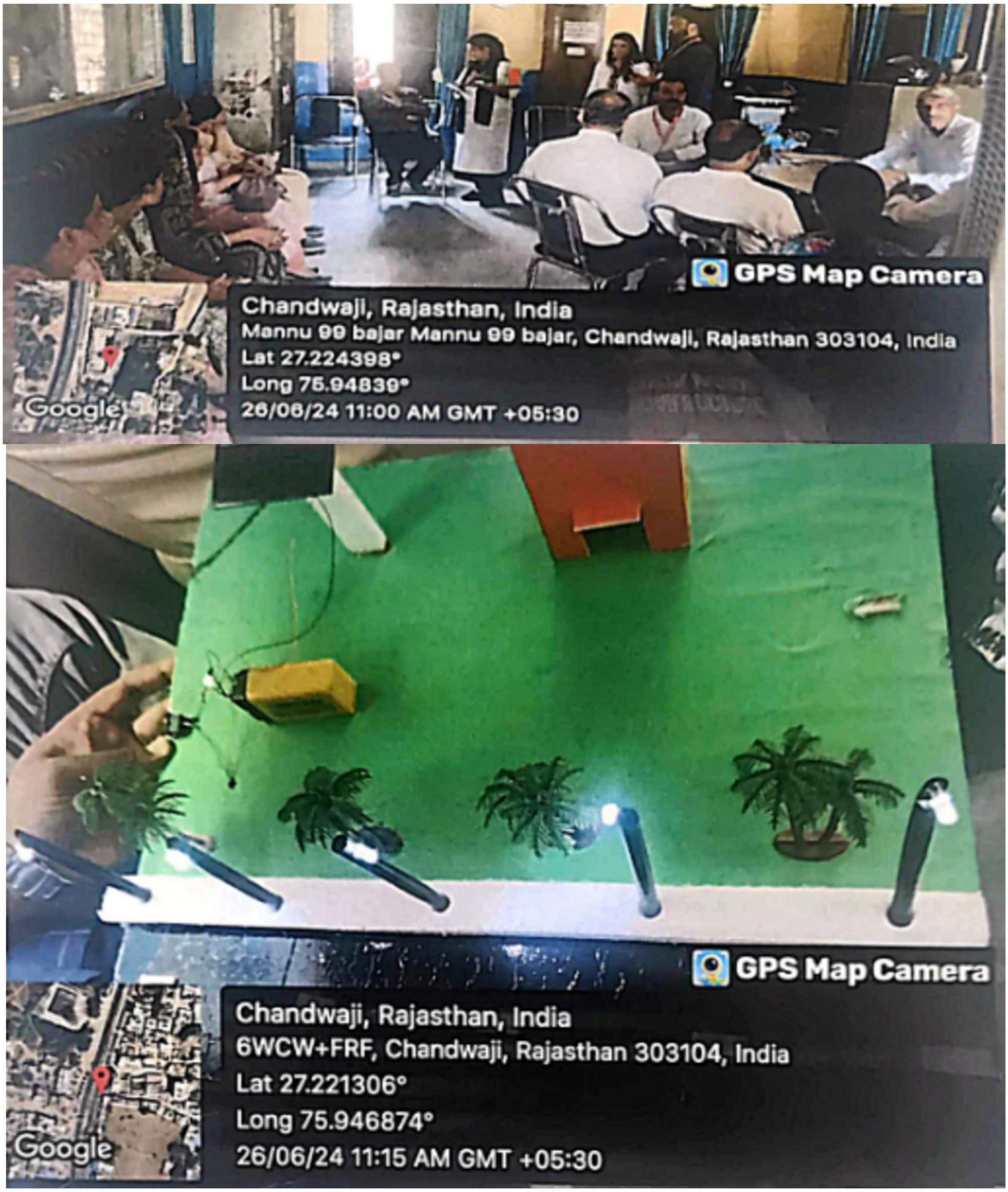
Purpose

- Demonstrate how renewable energy projects can provide electricity to remote or underserved areas, enhancing the quality of life and driving economic development.
- Illustrate how renewable energy initiatives contribute to infrastructure development and benefit local communities.
- Increase awareness among participants about renewable energy, climate change, and sustainable practices for future resilience.

Activities

- Faculty members from NIMS University delivered presentations on the importance of renewable energy and its potential for driving sustainable development in rural areas.
- School staff and villagers participated in discussions about how renewable energy can be applied to everyday life, improving local infrastructure and supporting innovation.
- The team showcased small-scale renewable energy solutions, such as solar panels, and explained their practical applications in remote areas.
- A question-and-answer session followed, allowing participants to seek clarification and learn more about the benefits of renewable energy and sustainable practices.

NIMS Institute of Engineering & Technology



NIMS Institute of Engineering & Technology

2.Feed Back

SDG activity conducted by faculty members of NIMS University beneficial for us hopefully. We will implement all the projects in our school as well as at our homes.

JP Singh

The SDGs require students to think critically about complex issues related to sustainable development, such as climate change, poverty etc. Students can develop critical thinking & problem solving skills.

madan

SDG Activity was good and we solve Complex issues to Sustainable development. SDG-9 developed Critical thinking and Skill.

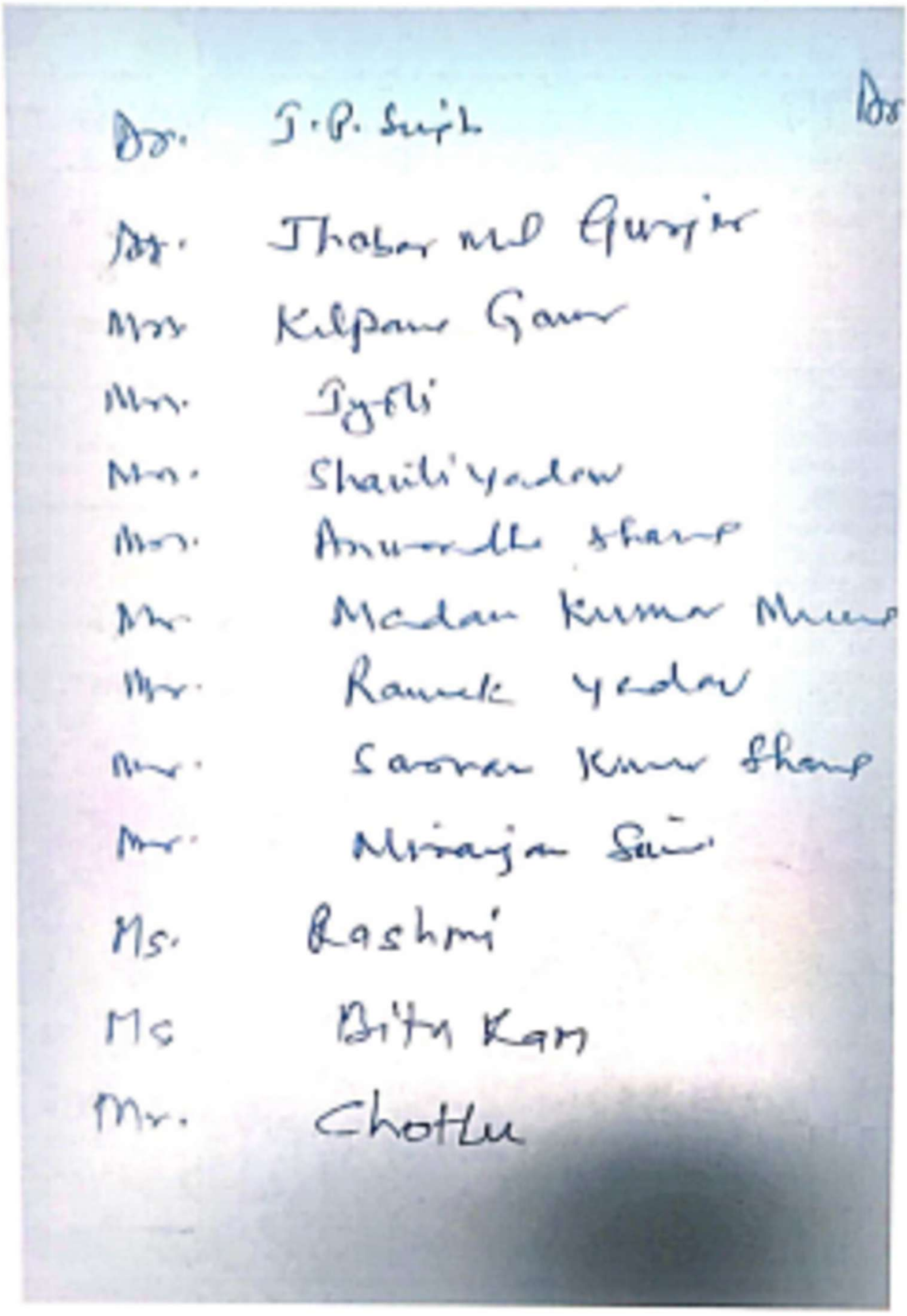
Nirmaljeet Saini

SDG अच्छा है। सोलर उर्जा का महत्व समझ आया

विक्रम

NIMS Institute of Engineering & Technology

3.List of participants (Villagers/Locals/ Staff Members)



NIMS Institute of Engineering & Technology

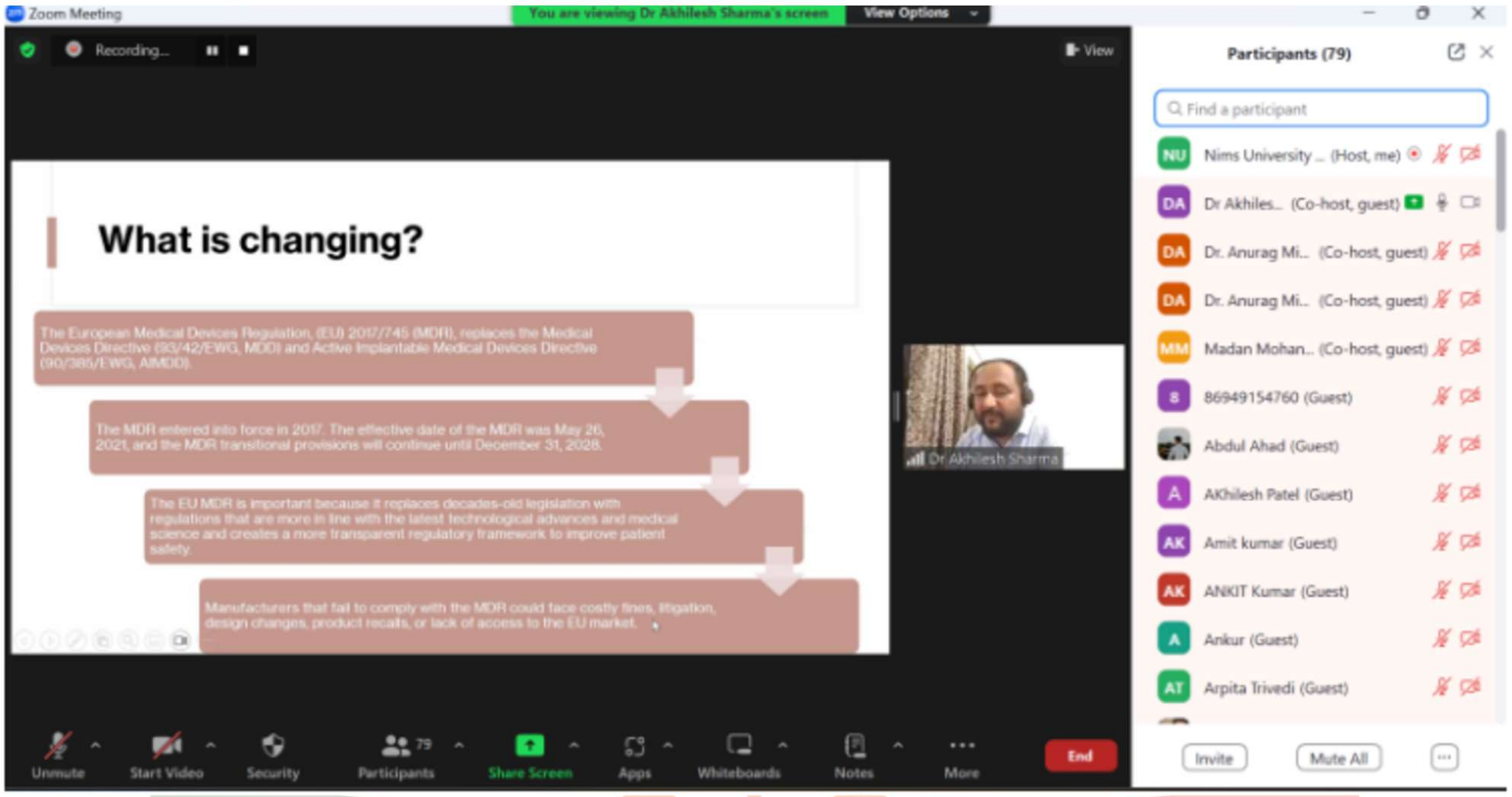
Observations

- Participants, especially the villagers, gained a better understanding of renewable energy's role in sustainable development and how it can improve their daily lives.
- There was significant interest among the participants in using renewable energy to develop local infrastructure and support economic growth.
- The interactive nature of the program encouraged villagers and school staff to explore how renewable energy can be implemented in their community.

Conclusion

The SDG 9 awareness program at Govt. Senior Secondary School, Chandwaji, successfully raised awareness about the importance of renewable energy for sustainable industrialization and infrastructure development. The participants, particularly the local villagers, recognized the potential of renewable energy to improve both individual and community well-being. This program demonstrated the importance of education and community engagement in promoting sustainable practices, which will play a crucial role in achieving SDG 9 in rural India.

NIMS Institute of Pharmacy



Visit Overview

From June 2527, 2024, the NIMS Institute of Pharmacy organized activities focusing on Sustainable Development Goal (SDG) 9: Industry, Innovation, and Infrastructure. The events took place at the RIICO Industrial Area in Kukas and included participants such as students, industry professionals, civil engineers, and mechanical engineers.

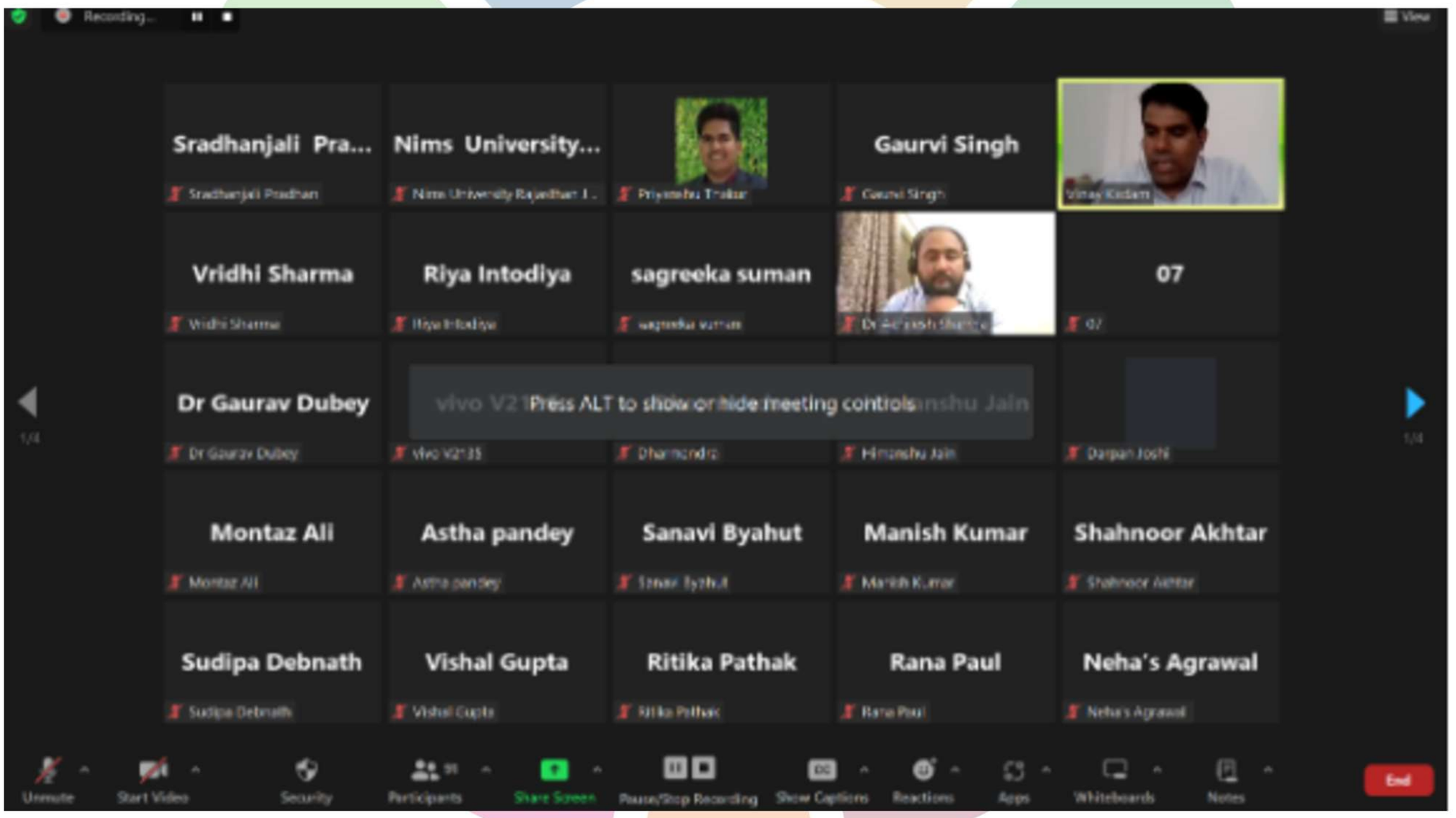
Background

SDG 9 aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. By adopting these goals, NIMS University demonstrates its commitment to upgrading industries and infrastructure to meet future challenges. The focus is on promoting innovative sustainable technologies, ensuring equal access to information and financial markets, and building economic growth and job creation.

NIMS Institute of Pharmacy

Purpose

The purpose of this activity was to highlight the importance of resilient and sustainable infrastructure in building successful communities. By promoting innovative technologies and ensuring universal access to information and financial markets, the activities aimed to drive prosperity, job creation, and stable societies globally. The initiative also focused on reducing environmental impacts and disaster risks through greener infrastructures and smart technologies.



Activities

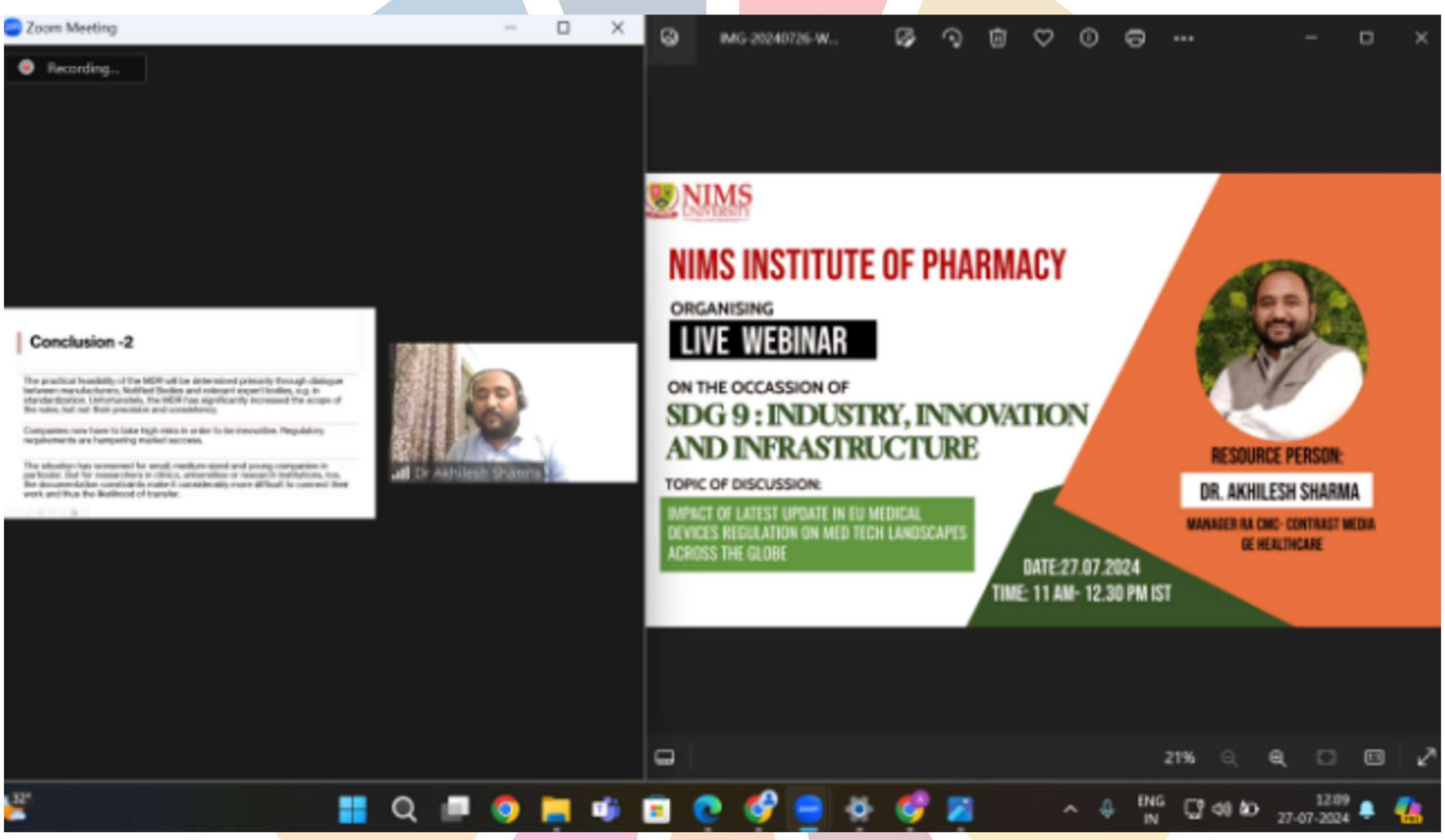
1. Advisory Sessions:

- Discussions with participants on the significance of resilient infrastructure and sustainable industrialization.
- Sharing insights on how innovative technologies can contribute to building efficient and environmentally friendly infrastructures.

NIMS Institute of Pharmacy

2. Webinar on Innovation in Medical Devices in the Health Sector:

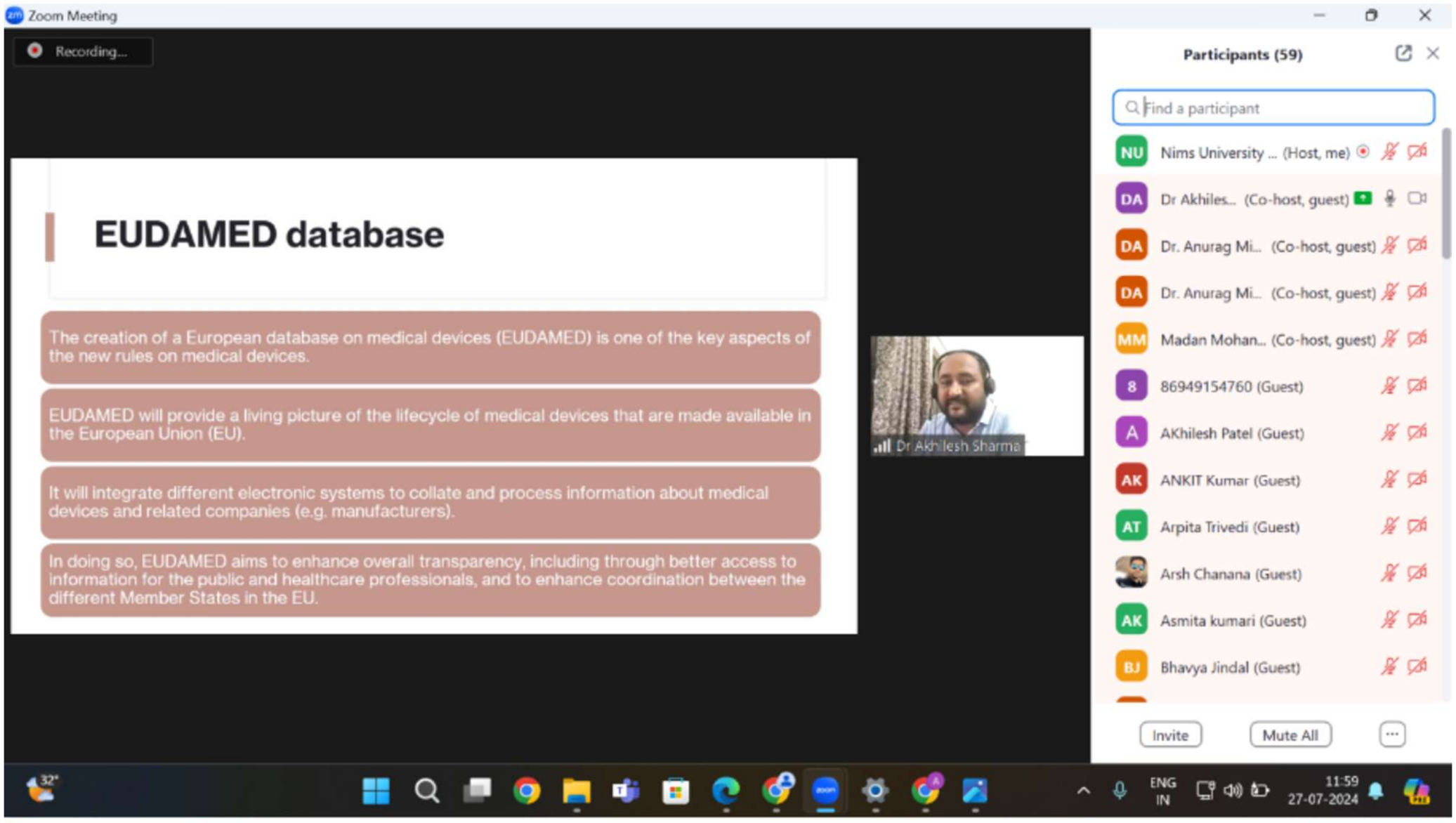
- Conducted by Dr. Akhilesh Sharma on July 27, 2024.
- Explored cutting-edge technologies and creative solutions in healthcare, including advanced imaging, wearable health monitors, and robotic-assisted surgeries.

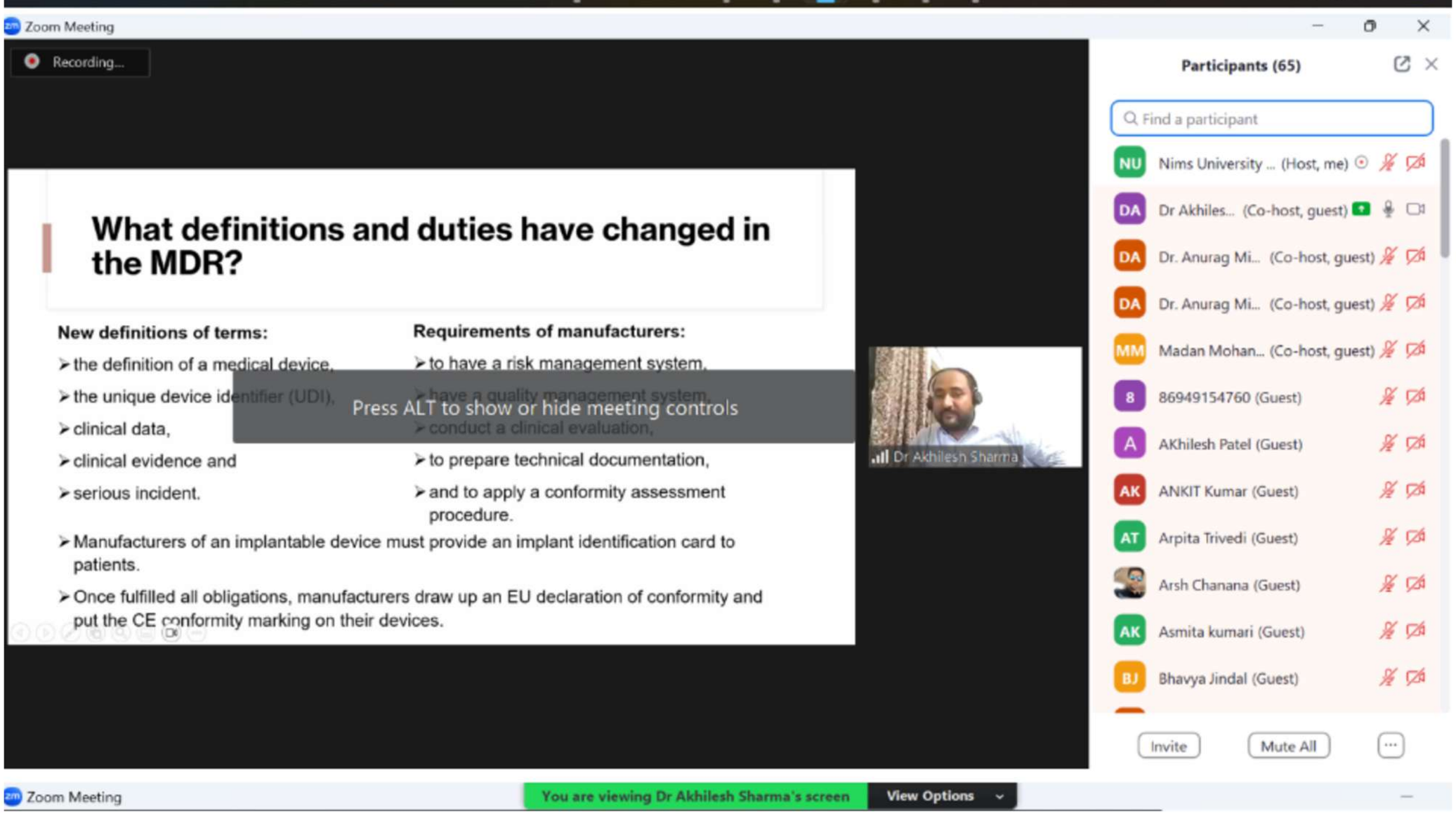


Key Takeaways:

- **Enhanced Patient Outcomes:** AI-driven diagnostics and personalized treatment plans lead to more accurate and timely interventions.
- **Increased Accessibility:** Telemedicine and portable diagnostic devices break down barriers to healthcare access.
- **Efficiency and Cost Reduction:** Automation and data analytics streamline operations and reduce costs.
- **Future Trends:** Integration of IoT with medical devices and the use of patient-generated health data for personalized treatments.

NIMS Institute of Pharmacy





NIMS Institute of Pharmacy

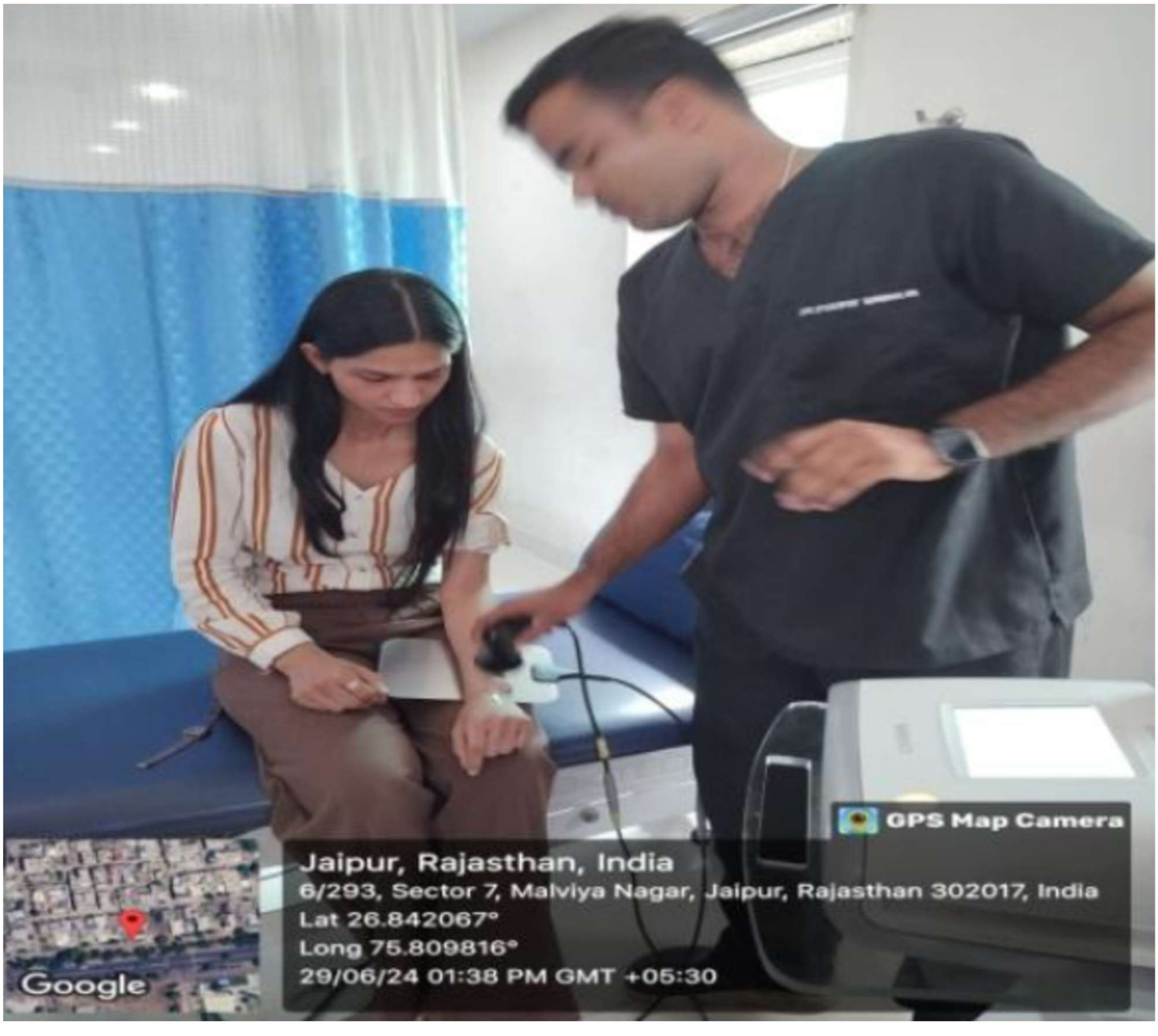
Observation

Participants demonstrated keen interest in the concepts of resilient infrastructure and sustainable industrialization. The advisory sessions provided practical knowledge on implementing innovative technologies in infrastructure projects. The webinar on medical device innovation highlighted significant advancements in healthcare, showcasing how technology can enhance patient outcomes and accessibility.

Conclusion

The activities conducted by the NIMS Institute of Pharmacy effectively promoted the principles of SDG 9. By educating participants on the importance of sustainable industrialization and infrastructure, the initiative laid the foundation for future advancements in these areas. The insights gained from the webinar on medical device innovation underscored the transformative potential of technology in healthcare. Continued collaboration and investment in research and development will be crucial for addressing current challenges and unlocking new opportunities for growth and wellbeing.

NIMS College of Physiotherapy and Occupational Therapy



Visit Overview

On June 29, 2024, the NIMS College of Physiotherapy and Occupational Therapy organized an educational visit focusing on Sustainable Development Goal (SDG) 9: Industry, Innovation, and Infrastructure. The visit took place at CK Birla Hospital and BTN Physio Hub and Diagnostic Centre in Jaipur. The delegation included two faculty members, Dr. Drishti and Dr. Danistha, along with 6-8 interns.

NIMS College of Physiotherapy and Occupational Therapy

Background

SDG 9 aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. By adopting these goals, NIMS University is committed to advancing knowledge and practices in the field of healthcare infrastructure. The visit aimed to expose students to world-class healthcare facilities and innovations in physiotherapy, enhancing their understanding of modern medical practices and patient care.

Purpose

The primary purpose of the educational visit was to provide interns with firsthand experience of advanced physiotherapy infrastructure and practices. By visiting CK Birla Hospital and BTN Physio Hub, the interns were introduced to recent innovations such as artificial intelligence, advanced robotics machines, hydrotherapy, and hyperbaric oxygen therapy (HBOT). This exposure aimed to deepen their understanding of the integration of technology in healthcare and improve their knowledge of comprehensive patient care services.

NIMS College of Physiotherapy and Occupational Therapy

Activities

1. Hospital and Diagnostic Centre Tour:

- The interns toured various departments at CK Birla Hospital, including the Physiotherapy OPD and IPD, Neuro, Pediatrics, Orthopaedic, Sports, Cardiopulmonary, Obstetrics and Gynecology, and General OPDs and IPDs.
- The tour provided insights into the latest physiotherapy innovations and infrastructure.

NIMS UNIVERSITY
RAJASTHAN, JAIPUR

UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP

NIMS College of Physiotherapy and Occupational Therapy

NIMS College of Physiotherapy and Occupational Therapy

2. Interactive Q&A Session:

- An interactive question and answer session was conducted under the supervision of Dr. Anurag Aggarwal.
- Interns had the opportunity to ask questions and discuss the applications and benefits of advanced physiotherapy techniques and equipment.

Observation

The interns showed great enthusiasm and interest during the visit. They were particularly impressed by the state-of-the-art physiotherapy equipment and the integration of AI and robotics in patient care. The interactive session with Dr. Anurag Aggarwal allowed them to gain deeper insights into practical applications and the future of physiotherapy innovations.

NIMS College of Physiotherapy and Occupational Therapy

Conclusion

The educational visit to CK Birla Hospital and BTN Physio Hub successfully met the objectives of SDG 9 by exposing interns to cutting-edge infrastructure and innovative practices in physiotherapy. The experience enhanced their understanding of the importance of resilient healthcare infrastructure and the role of technological advancements in improving patient outcomes. This initiative by NIMS University is a step forward in fostering industry innovation and building a foundation for future healthcare professionals to contribute to sustainable and inclusive industrialization in the medical field.

NIMS School of Humanities And Liberal Arts

Visit Overview

On July 19, 2024, the Department of Economics at NIMS University organized an industrial visit to Parle Biscuits Pvt. Ltd., located in Madhosinghpura, Neemrana, Rajasthan. The visit, which focused on raising awareness about Sustainable Development Goal (SDG) 9: Industry, Innovation, and Infrastructure, included 23 participants and lasted from 9:00 am to 3:00 pm. The visit was guided by Dr. Rashmi Dwivedi, Assistant Professor and Head of the department, along with three other faculty members.

Background

SDG 9 aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. NIMS University has adopted these goals to ensure that students are equipped with practical knowledge and an understanding of modern industrial practices. This visit to Parle Biscuits Pvt. Ltd. was organized to provide students with firsthand experience of industry operations, innovations, and infrastructure.

NIMS School of Humanities And Liberal Arts

Purpose

The primary objective of the visit was to enhance the practical and industrial knowledge of students by exposing them to real-world industry settings. By observing the operations at Parle Biscuits, students were expected to gain insights into the industry's innovative practices and sustainable infrastructure. The visit aimed to bridge the gap between theoretical knowledge and practical application, emphasizing the importance of sustainable industrialization and infrastructure development.

Activities

1. Introduction and Film Presentation:

- The visit began with a brief introduction by the HR department of Parle Biscuits, led by Assistant Manager Mahendra Sihag.
- A film was shown to the students, providing an overview of the history, production processes, and innovations at Parle Biscuits. This helped students understand the company's journey and its commitment to quality and sustainability.

NIMS School of Humanities And Liberal Arts

Activities

1. Introduction and Film Presentation:

- The visit began with a brief introduction by the HR department of Parle Biscuits, led by Assistant Manager Mahendra Sihag.
- A film was shown to the students, providing an overview of the history, production processes, and innovations at Parle Biscuits. This helped students understand the company's journey and its commitment to quality and sustainability.

2. Practical Observation:

- Students and faculty were taken on a tour of the production facilities. They observed the entire production system, from the mixing of ingredients to the baking, cooling, and packaging of biscuits.
- The tour highlighted the innovative machinery and infrastructure used in the production process, showcasing how the industry integrates modern technology to enhance efficiency and product quality.

3. Eco-friendly Packaging:

The visit concluded with an explanation of Parle's eco-friendly packaging solutions. Students learned about the materials used and the company's efforts to ensure that their packaging is easily decomposable and environmentally friendly.

Observation

The students were highly engaged and showed keen interest throughout the visit. They appreciated the opportunity to observe the production processes and the advanced technology used in the industry. The interactive session with the HR team provided them with valuable insights into the operational and innovative aspects of Parle Biscuits. The emphasis on eco-friendly packaging was particularly noted, highlighting the company's commitment to sustainability.

NIMS School of Humanities And Liberal Arts

Conclusion

The industrial visit to Parle Biscuits Pvt. Ltd. was a successful endeavor in aligning with SDG 9. It provided students with a comprehensive understanding of industry operations, innovative practices, and sustainable infrastructure. The hands-on experience and practical insights gained during the visit are expected to enrich the students' academic learning and prepare them for future challenges in the industrial sector. NIMS University's commitment to integrating SDG goals into its educational programs continues to foster a deeper understanding and appreciation of sustainable industrialization and innovation among its students.

NIMS School of Business

Visit Overview

The NIMS Institute of Business Studies organized an industrial visit to Rajdhani Associates in Vidyadhar Nagar, Jaipur, on 26th July 2024. The drive was to provide participants with exposure to the latest innovations in agricultural technology, boosting their understanding of the tools necessary for building a sustainable and efficient future in line with SDG 9: Industry, Innovation, and Infrastructure.

Background

Parallel with the United Nations' SDG 9, which highlights encouraging innovation, resilient infrastructure, and inclusive industrialization, this visit sought to provide students with a first-hand understanding of modern technological advancements in the agricultural machinery sector. Rajdhani Associates is known for its expertise in developing and manufacturing advanced tools that address the evolving needs of the agriculture industry. The visit sought to bridge theoretical learning with practical applications, reinforcing the role of technological innovation in promoting sustainable agriculture.

NIMS School of Business

Purpose

- Equip participants with insights into innovations like automation, precision farming tools, and advanced sensors in agricultural machinery.
- Highlight how advanced equipment can boost productivity, lower labour costs, and contribute to sustainable farming practices.
- Show practical examples of how these innovations tackle agricultural challenges.
- Simplify connections with engineers, industry experts, and other stakeholders for knowledge exchange and potential collaborations.
- Allow participants to assess the effectiveness and reliability of different machinery for agricultural use.

Activities

- A guided tour of Rajdhani Associates' manufacturing plant, showcasing the production process from raw material handling to the final assembly of agricultural machinery.
- Live demonstrations of tools and equipment to showcase their performance and potential applications.
- Experts delivered presentations on the latest technologies, industry trends, and best practices in agricultural innovation.
- Interactive sessions with product designers and engineers to address queries related to the technology and its implementation.
- Participants tested the equipment, delivering them practical experience and a better understanding of usability.

Observations

- Participants gained a deeper understanding of the emerging trends in agricultural technology, specifically tools designed to optimize farming efficiency.
- A detailed evaluation of various agricultural tools helped participants make informed decisions regarding potential investments or upgrades.
- The practical demonstrations provided valuable insights into the diverse applications of these technologies in the agricultural sector.
- Participants gathered essential information about the pricing, warranty options, and maintenance requirements of the equipment.
- The visit opened up opportunities for future partnerships and collaborations between participants and the manufacturers.

NIMS School of Business

Conclusion

The visit to Rajdhani Associates significantly enhanced participants' understanding of the importance of technological innovation in achieving sustainable agricultural practices, in line with SDG 9. The hands-on experience, coupled with direct interactions with industry experts, allowed participants to evaluate how these innovations can be practically implemented to breed efficiency, reduce costs, and promote sustainable infrastructure in agriculture. The visit also paved the way for potential future collaborations with the manufacturers, ensuring continuous innovation and development in the agricultural sector.

NIMS College Of Paramedical Technology

Visit Overview

On 24th September 2024, students from NIMS College of Paramedical Technology, under the mentorship of Dr. Deepak Gupta and Ms. Jyoti Mahawar, visited the Eye Bank Society in Rajasthan, Jaipur. The visit aimed to raise awareness about eye donation and expose students to the latest innovations in corneal preservation and eye banking infrastructure. This hands-on learning experience provided insights into the vital role of technology in healthcare, aligning with the principles of SDG 9—Industry, Innovation, and Infrastructure.

Background

The Eye Bank Society of Rajasthan is a critical institution that plays a key role in eye donation and the preservation of corneas for transplantation. As part of NIMS University Rajasthan's commitment to promoting industry, innovation, and infrastructure in healthcare, the College of Paramedical Technology organized this visit to help students understand the integration of modern technology in healthcare. The goal was to equip participants with the knowledge of how healthcare infrastructure supports medical advancements, especially in eye care.

NIMS UNIVERSITY
RAJASTHAN, JAIPUR

UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP

NIMS College Of Paramedical Technology

NIMS College Of Paramedical Technology

Purpose

The primary objectives of the visit were:

1. To raise awareness among students about the importance of eye donation.
2. To educate participants on the modern methods of corneal preservation and their significance.
3. To introduce the students to the latest innovations in eye banking technology and its infrastructure.

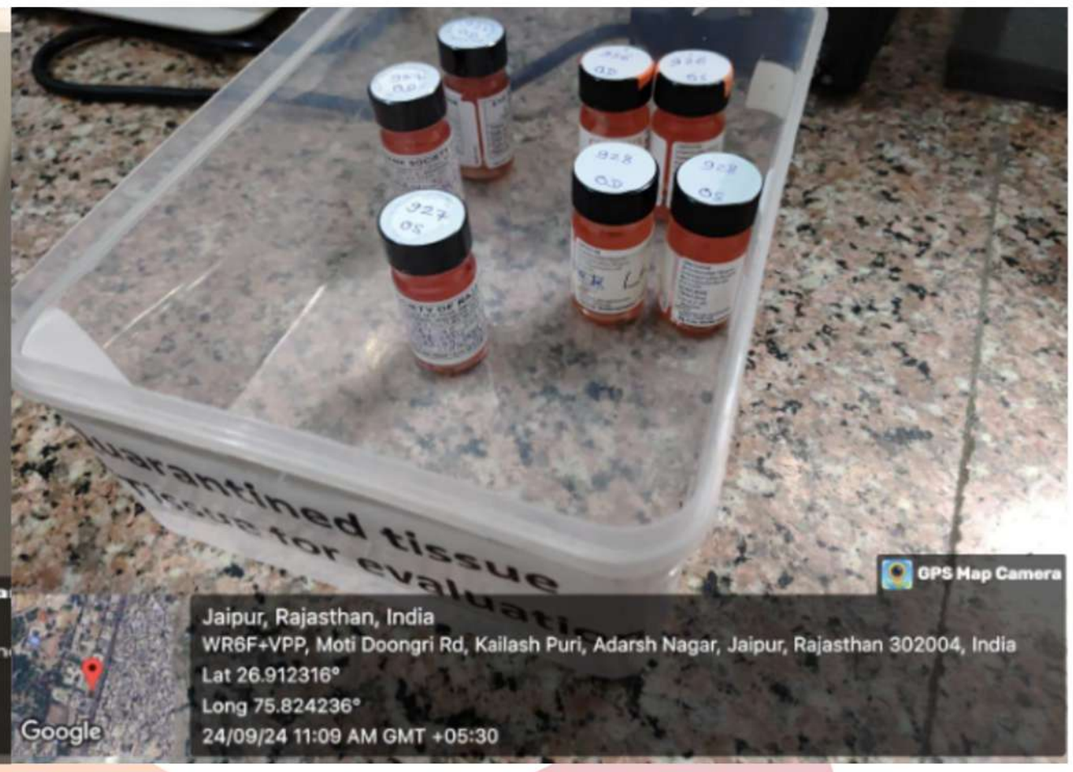
This educational activity was designed to bridge theoretical learning with real-world applications, in line with SDG 9, which promotes resilient infrastructure and innovation.

Activities

During the visit, the following activities were conducted:

- **Interactive Sessions:** Students engaged with eye bank personnel, learning about corneal preservation and the importance of maintaining high standards in healthcare infrastructure.

NIMS College Of Paramedical Technology



- **Technology Demonstration:** The participants were introduced to the latest equipment and technology used in eye banking, gaining insights into how innovation enhances the quality and effectiveness of medical services.

- **Hands-on Learning:** Practical demonstrations on corneal preservation methods provided students with firsthand experience in applying healthcare innovations.

- **Community Interaction:** The students had the opportunity to engage with the local eye donation community, fostering a sense of advocacy for eye donation.

Observations

Technological Integration: The visit highlighted how advanced technology in eye banking infrastructure plays a pivotal role in preserving vision and improving the success rate of transplants.

Student Engagement: The participants were actively involved in understanding the nuances of eye donation, corneal preservation, and the broader infrastructure that supports such medical innovations.

Community Impact: The students recognized the critical role eye banks play in addressing visual impairment and blindness, thus raising awareness about this cause within their communities.

NIMS College Of Paramedical Technology

EYE BANK SOCIETY OF RAJASTHAN

Donate Your Eyes..... Help Corneal Blindness

No.: EBSR/NIMS/2024/258

Date: 24/09/2024

To,

The NIMS Paramedical College
NIMS University,
Jaipur, Rajasthan.

Subject:-Acknowledgment of Student Visit to Eye Bank Society of Rajasthan

Dear Sir/Madam,

We would like to express our sincere gratitude to you and the student group from NIMS University for visiting the Eye Bank Society of Rajasthan, Jaipur, on 24-09-2024. The group of 13 students and two factuly members explored various aspects of eye banking and eye donation during their educational visit, gaining valuable insights into our work and mission.

The visit provided a comprehensive overview of the eye banking process, including corneal retrieval, storage, and transplantation. We trust that this experience was enriching for the students.

We hope that your visit provided you with valuable insights into the importance of eye donation and the processes involved in eye banking. The dedication and eagerness shown by your group reflect a strong commitment to understanding the impact of corneal donation on the lives of those affected by blindness.

We encourage you to continue spreading awareness about eye donation and hope that this experience has inspired you to contribute to the noble cause of restoring sight for the corneally blind.

Thank you once again for your visit, and we look forward to welcoming you again in the future.

With Best Wishes

(Sudershana Shekhawat)
Senior Manager

Page 1 of 1

Head Office:
Mobile Surgical Unit Campus, Moti Doongri Road, Jaipur - 302004 * Tel. No.: 0141-2604117,
Manager – 8559980955, Netradan Help Line No. 18002020388
E-mail: ebsr_jp@hotmail.com* Website: www.ebsr.in
All donations to EBSR are eligible for deduction u/s 80G of I. T. Act.

NIMS College Of Paramedical Technology

Conclusion

The visit to the Eye Bank Society was a significant success, meeting all educational and practical objectives. The students left with enhanced knowledge of eye donation and its supporting infrastructure, directly contributing to the goals of SDG 9—promoting innovation and infrastructure in healthcare. This experience not only raised awareness but also empowered students to advocate for advancements in medical technology and infrastructure development, ensuring sustainable health services for future generations.

Conclusion

Globally, progress toward SDG Goal 9 has been uneven, with certain regions advancing significantly while the rest needs more industrialization. The thematic review of SDG 9 highlights key indicators such as manufacturing employment, access to financial services, mobile and internet penetration, and research and development (R&D) expenditure.

Manufacturing employment, a critical component of SDG 9, has seen a complex trajectory. Despite the increase in global manufacturing jobs from 262 million in 1970 to 482 million in 2014, the proportion of those employed in this sector has declined in developed countries, reflecting shifts toward technological advancements like automation and robotics. These trends have influenced the global manufacturing landscape, leaving Least Developed Countries (LDCs) lagging, where manufacturing value-added per capita remains far below developed nations.

Access to financial services, particularly for small and medium-sized enterprises (SMEs), is another foundation of SDG 9. Though progress has been made, only 37% of SMEs globally receive sufficient credit, hindering their potential to grow and create jobs, especially in LDCs. This issue is closely linked to the broader goals of SDG 8 (decent work) and SDG 5 (gender equality), as enhancing access to finance for women-owned firms can significantly contribute to economic development.

Infrastructure development, particularly access to the internet and mobile technologies, is essential for achieving SDG 9. While mobile network coverage has reached 95% of the world's population, internet access remains a major challenge, with only 11.1% of households in LDCs connected, compared to 83.8% in developed countries. This digital divide hampers progress in various sectors, including education, health, and women's empowerment, and limits SMEs' access to global markets and value chains.

Challenges to SDG 9 include inadequate infrastructure in transportation, energy, and internet access, particularly in rural and landlocked areas. These issues contribute to higher trading costs, reduced export competitiveness, and limited foreign investment. R&D expenditures also vary significantly across regions, with LDCs investing only 0.3% of their GDP in research compared to 2.4% in developed nations. This disparity affects the global distribution of technological advancements, which is critical for boosting innovation.

NIMS UNIVERSITY
RAJASTHAN, JAIPUR

UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP

Conclusion

Financing for SDG 9 implementation remains a major obstacle. Substantial investments are required to close gaps in infrastructure, particularly in rural areas where investments in water, electricity, and transportation systems can support local growth. Although official development assistance (ODA) has increased, more resources are needed to meet the annual funding requirement of US$1-1.5 trillion to ensure that all countries can progress toward sustainable industrialization and infrastructure development.

While strides have been made in advancing SDG 9, much remains to be done, especially in developing countries. Enhanced political will, financial investments, and international cooperation are essential to ensure that industrialization is inclusive, resilient, and sustainable, particularly in regions where development has lagged. Integrating emerging technologies and infrastructure improvements can be climactic in covering these gaps, empowering communities, and driving global progress toward achieving SDG 9.

END OF REPORT