



# FIRST INDUSTRY ACADEMIA MEET & INTERNATIONAL CONFERENCE ON TRENDS AND INNOVATIONS IN SCIENCE & ENGINEERING

## BRIDGING THE INDUSTRY-ACADEMIA INTERFACE

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#### CONFERENCE THEME

INNOVATION ACROSS DISCIPLINES & BORDERS : FOSTERING GLOBAL PERSPECTIVE  
TO BUILD A SKILLED WORKFORCE FOR A SUSTAINABLE TOMORROW



INTEGRAL  
**Startups**  
FOUNDATION

# ABSTRACT BOOK

ORGANIZED BY

DEPARTMENT OF BIOENGINEERING  
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AND

INTEGRAL STARTUPS FOUNDATION

IN ASSOCIATION WITH

AFSTI LUCKNOW CHAPTER & INDIAN NATIONAL YOUNG ACADEMY OF SCIENCES, NEW DELHI

SUSTAINABLE  
DEVELOPMENT **GOALS**

1 NO  
POVERTY



2 ZERO  
HUNGER



3 GOOD HEALTH  
AND WELL-BEING



4 QUALITY  
EDUCATION



6 CLEAN WATER  
AND SANITATION



7 AFFORDABLE AND  
CLEAN ENERGY



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



13 CLIMATE  
ACTION



14 LIFE  
BELOW WATER



17 PARTNERSHIPS  
FOR THE GOALS



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### **Editors:**

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## Industry-Academia Collaboration: A Catalyst for Achieving SDG 9

Shariq Shabbir, Syed Uzair Ali, Umar Khalid, Dr. Rizwana Atiq

Department of Business Management, Integral Business School, Integral University, India.

**\*Corresponding E-mail:** rizwana@iul.ac.in

The partnership between industry and academia plays a vital role in driving technological progress and economic growth. Sustainable Development Goal 9 (SDG 9) emphasizes the need for resilient infrastructure, inclusive industrialization, and continuous innovation, all of which can be significantly accelerated through strategic collaboration between educational institutions and businesses. By fostering knowledge exchange, industry-academia partnerships bridge the gap between theoretical learning and practical application, leading to improved industrial efficiency and workforce development. This paper examines how industry-academia collaboration contributes to sustainable industrialization by enhancing research, fostering innovation, and developing skilled professionals. Various collaboration models, such as joint research initiatives, industry-sponsored academic projects, technology transfer programs, and internship opportunities, have proven instrumental in strengthening industrial capabilities. Real-world case studies demonstrate how these partnerships drive economic advancement while ensuring sustainability and technological resilience. However, several barriers hinder effective collaboration, including differences in objectives, intellectual property concerns, bureaucratic red tape, and funding constraints. Addressing these challenges requires well-defined policies, government incentives, and streamlined mechanisms for knowledge sharing. Furthermore, emerging digital technologies, including Artificial Intelligence, Blockchain, and the Internet of Things (IoT), provide new avenues for deeper engagement between academia and industry. This study underscores the need for structured and goal-oriented industry-academia partnerships that align with national and global sustainability objectives. Strengthening these collaborations will not only drive industrial growth and technological progress but also create employment opportunities and enhance global competitiveness. By fostering strong synergies between academic institutions and industries, nations can accelerate progress toward achieving SDG 9, ensuring long-term economic resilience and innovation-driven development.

**Keywords:** Industry-Academia Collaboration, Innovation, Sustainable Development, Industrial Growth, Research Partnerships