



Centenary Lecture Series-8

Prof. Bhupinder Godara Shares Insights on Product Development from Concept to Market at IIT (ISM) Dhanbad's Centenary Lecture Series – 8.

Continuing its mission to bring together leading voices in engineering, the Department of Mechanical Engineering, IIT (ISM) Dhanbad hosted **Prof. Bhupinder Godara** from the Department of Mechanical Engineering, IIT Delhi, for the **eighth lecture** in its Centenary Lecture Series.

Prof. Godara's lecture, titled **“Two Case Studies on Product Development Cycle from Concept to Market,”** offered a detailed exploration of the full product development process, illustrating how ideas are transformed into market-ready products. Drawing on his extensive industrial and academic experience, he walked the audience through two real-world case studies: the indigenous development of roof-mounted air-conditioning systems for Indian Railways and the creation of high-efficiency residential air conditioning solutions. His talk underscored the complexities of design, prototyping, testing, and commercialization, while emphasizing the importance of innovation, collaboration with industry stakeholders, and sustainable engineering practices.

The session was attended by **Prof. N.K. Singh, Head of the Department (Acting) (Mechanical Engineering), Prof. Alok Kumar Das, Dean (Innovation, Incubation & Entrepreneurship), and Prof. Amit Rai Dixit, Dean (Infrastructure)**, along with senior faculty members and an enthusiastic gathering of students and research scholars. The interactive session that followed provided valuable insights into challenges and best practices in the product development lifecycle.

The event was coordinated by Prof. Abhijeet Sethi, Coordinator, Centenary Lecture Series, Mechanical Engineering Department.

With each session, the Centenary Lecture Series at IIT (ISM) Dhanbad continues to foster academic excellence and industry-relevant learning as it celebrates a century of engineering leadership.



About Prof. Bhupinder Godara,

Prof. Bhupinder Godara has worked as Professor of Practice engaged in teaching and research at IIT Delhi in the Department of Mechanical Engineering for the last 5 years. Prior to this, he worked as a part of senior management in product development, business development and creating laboratory setups in some of the leading refrigeration and air conditioning companies, including Carrier & Danfoss. With industry experience of almost 30 years, he has managed the product development cycle from concept to market in several complex applications for Indian Railways, Indian Army, telecommunications, cellular infrastructure, milk chilling units for retail vending, residential and light commercial air conditioners, and commercial chillers. One of his first design projects was leading the design and development effort to introduce roof mounted package air-conditioning units for Indian Railways in the period 1993-1998. The project was an indigenous design effort in collaboration with RDSO and RCF Kapurthala. The design continues to be a dependable solution for Indian Railways for meeting the comfort needs of passengers even today. He has a special interest in sustainable, energy efficient air-conditioning technology. While working at Carrier he led a platform project to introduce a new high efficiency residential air conditioner that worked as a catalyst to bring focus on energy efficiency in the Indian market. In the same period, he was also an influencer, contributor, and collaborator with BEE and R&D professionals from India's leading air conditioner manufacturers to enable stakeholder alignment for introduction of the Energy Labeling Program for air conditioners that was launched by BEE in 2007. While working to design products for addressing cooling needs of mobile Telecom infrastructure (2008-2010), he developed products with the best-in-class energy efficiency, certified in third party test labs. In addition to best-in-class EER, these products featured a free cooling mode that enabled the use of cold ambient air in winter for equipment cooling eliminating the need for compressor operation.