NITTTR BHOPAL

NEP-9/2025-2026
Ancient Indian Technology in Mechanical Engineering
27-10-2025 to 31-10-2025
NITTTR Bhopal

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Rationale

India has a rich legacy of scientific and technological advancement dating back thousands of years, much of which remains underexplored in modern engineering curricula. Ancient Indian civilizations developed sophisticated knowledge in materials, hydraulics, mechanics, and design, evidenced in enduring marvels like the Iron Pillar of Delhi, advanced water management systems, and detailed treatises such as the Samarangana Sutradhara and Arthashastra.

This short-term programme aims to bridge the gap between ancient wisdom and modern mechanical engineering practices. By studying historical technologies, students and professionals can gain a deeper cultural understanding of India's contributions to global science and technology and its relevance in today's context.

Integrating this knowledge enhances critical thinking, broadens technological perspective, and fosters pride in indigenous knowledge systems—while equipping participants to apply historical principles to solve modern engineering challenges.

Programme Outcomes

The Participant will be able to:

Identify ancient Indian engineering principles and mechanical innovations documented in ancient Indian texts.
Explain traditional practices in hydraulics, metallurgy, and mechanical systems
Integrate ancient engineering concepts with modern applications.
Promote sustainable, low-tech, and culturally informed engineering design.
Appreciate the contributions of Indian scientists and engineers from antiquity

Programme Content

Introduction to ancient Indian Engineering knowledge system, Philosophy of design and mechanics in ancient India, Tools, measurement systems, and units used in ancient India Ancient Indian irrigation systems and techniques, Mechanical systems used in ancient war machines and transport, rotating yantras, Materials and Metallurgy, Ethics, sustainability, and low-tech solutions from the past.

Target Group

Faculty of Mechanical Engineering and allied disciplines

Coordinator & Co-Faculty

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