



SurTech

Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex

(Formerly Known as Dr. Sudhir Chandra Sur Degree Engineering College)

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Report of Guest lecture session “Nature-Based Solutions for Infrastructure Development in Civil Engineering Works”

Organized by

Department of CE and IQAC Cell

of

**Dr. Sudhir Chandra Sur Institute of Technology and Sports Complex
(An Autonomous Institute)**

Title: Nature-Based Solutions for Infrastructure Development in Civil Engineering Works

Details of the Resource Person: Er. Pradip Kumar Chowdhury

Designation: Former Principal, Scientist/Technologist, IJIRA, Former Technical Advisor, Ministry of Textiles, Govt. of India, Kolkata, National Jute Board

Date & Time: 27.08.2026, 2.30 PM onwards

Venue: Dr. C.V. Raman Auditorium, SurTech

Number of Participants: 35

Objective: The session aimed to familiarize participants with the engineering application of Nature-Based Solutions, particularly the use of natural fibres and jute-based materials for erosion control, slope protection, soil stabilization and sustainable infrastructure development, while highlighting the importance of site conditions, material suitability and environmental performance in selecting such solutions.

Brief Overview: The guest lecture focused on the practical application of nature-based and bio-based techniques in civil engineering works. **Er. Pradip Kumar Chowdhury** discussed the use of jute and natural-fibre-based materials for soil erosion control, slope protection and stabilization. Drawing from his professional experience with IJIRA, the Ministry of Textiles and the National Jute Board, he explained the relevance of natural materials in infrastructure works and emphasized site-specific selection, constructability, durability, maintenance and environmental compatibility.

Outcome: The session enabled participants to:

- Understand the engineering principles and applications of Nature-Based Solutions.
- Identify potential uses of jute-based materials in erosion control, slope protection and soil stabilization.
- Relate site conditions, soil characteristics and drainage behaviour to the selection of suitable nature-based techniques.
- Appreciate the role of natural and locally available materials in sustainable infrastructure development.



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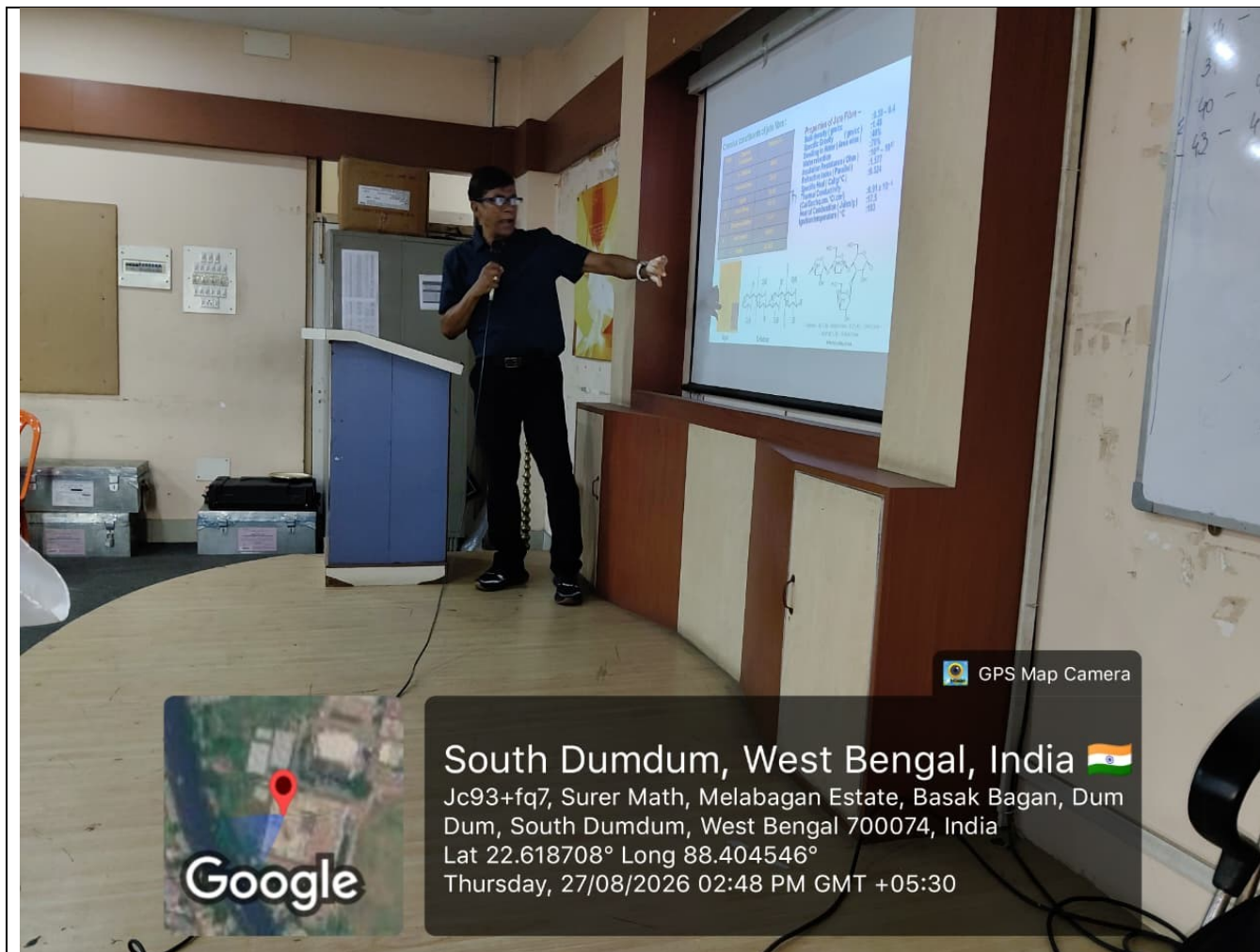
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- Understand the need to assess technical performance, durability, maintenance and environmental benefits before implementation.
- Gain practical insights into emerging applications of bio-based materials through the experience of an industry and technology expert.

Few glimpses of the session-



Guest lecture session “Nature-Based Solutions for Infrastructure Development in Civil Engineering Works” on 27.08.2026