

# बिरला प्रौद्योगिकी संस्थान BIRLA INSTITUTE OF TECHNOLOGY

(विo अनुo अधिनियम १६४६ की घारा ३ के तहत मानित विश्वविद्यालय || A Deemed to be University u/s 3 of UGS Act, 1956) मेसरा, राँची -८३५२९५ (भारत) || MESRA, RANCHI - 835 215 (INDIA)

## **BUILDING SAFETY CERTIFICATE**

Date of Issue: 24/10/2024

Validity: 3 Years (from the date of issue)

To
The Principal,
DIPSER,
Deoghar Campus, Bompas Town Area,
Deoghar, Jharkhand.

This is to certify that a comprehensive building survey was conducted on the buildings of DIPSER College (B. Ed, D. EL. Ed. & M.Ed. Building), Girls Hostel Building and Dev Sangha National School, located at the same premises in Deoghar, Jharkhand, to assess their structural integrity and ensure compliance with government safety regulations.

As part of this survey, the **structural elements** were thoroughly inspected to detect any signs of distress, damage, or potential risks that might affect the stability and safety of the buildings. The following key assessments were conducted:

#### 1. Visual Inspection:

- All accessible structural elements, including beams, columns, slabs, and staircase, were visually inspected to check for any cracks, deflections, or signs of distress.
- No major cracks or structural deformations were observed during the visual inspection.

#### 2. Non-Destructive Testing (NDT):

- Rebound Hammer Test: Conducted on various concrete elements to assess the compressive strength of the concrete. The readings indicated that the concrete strength ranged from 30 N/mm<sup>2</sup> to 48 N/mm<sup>2</sup>.
- Ultrasonic Pulse Velocity (UPV) Test: Performed to evaluate the homogeneity and quality of the concrete. The results showed the concrete quality to be **good** and free from significant voids or internal defects, as per IS 13311 (Part 1): 1992.

#### 3. Structural Distress Assessment:

- All primary load-bearing components were carefully examined for signs of distress, such as spalling of concrete, exposure of reinforcement, or significant settlement.
- No significant distress was detected in the primary structural elements of the buildings.

Based on the survey and test results, it is concluded that the structural elements of the buildings are safe and sound. There are no visible signs of structural distress or deterioration that would compromise the stability or safety of the buildings. The buildings are suitable for continued occupancy and use under normal operating conditions.

Professor and Head

Depti. of Civil and Environmental Englacertus

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### Certification

We are pleased to certify that the DIPSER and Dev Sangha National School buildings are structurally safe. This Building Safety Certificate is granted for three years, starting from the date of issue (24/10/2024), and is subject to regular maintenance and inspection to ensure ongoing compliance with safety standards.

#### **Important Notes:**

If any alterations or additional loads are introduced to the structure, a new assessment may be required to ensure continued safety.

Dr. Mani Mohan

(Principal Investigator)

Department of Civil & Env. Engineering

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Issued by:

Department of Civil and Environmental Engineering, Birla Institute of Technology Mesra Date:

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