## **Report on Expert Session**

**Topic:** Recent Trends of Structural Health Monitoring & Masonry Structures

**Date:** 20<sup>th</sup> March 2024 **Time:** 11.00 AM - 1.30 PM

Venue: S-205, PG in Civil (Structural Engineering) program Classroom, GSET

## **Event Summary**

PG in Civil (Structural Engineering) Program has conducted an expert talk on "Recent Trends on Masonry Structures and Structural Health Monitoring (SHM)" on 20th Mar 2024 by Er. Bhumik Halani, CEO Hone Structural Health Monitoring.

During the session expert have discussed on the following topics as:

- 1. Applications of Masonry Structures in construction with the application of normal lime and hydrated lime in application
- 2. Comparison on various aspect including life and maintenance of Masonry with RCC structures
- 3. Discussed on equilibrium in a masonry arch that can be visualized using a line of thrust. it is a theoretical line, which represents the path of the resultants of the compressive forces through the stone structure
- 4. Importance of strength of geometry in Masonry Structures and strength material in RCC structures
- 5. Application of FEA software for analysis of masonry structures
- 6. Scope of SHM and various sensors with their applications
- 7. Case studies of Bridge with fast Moving Vande Bharat train, effect of vibration through Water coolers near structure, Gyan Bhandar masonry structure and other public importance structures with video and pictorial presentation
- 8. Discussed on identification of various structural parameters using only the dataset of vibration through sensors applied on structure

The session was attended by 18 students. The session was coordinated by Prof. M. S. Seth and Prof. R. M. Makwana under the guidance of Dr. J. A. Amin, Professor and the direction of Dr. S. D. Panchal, Director GTU-GSET.

## Glimpses of Event

