

## Professional Discourse on Realistic Finite Element Analysis with Abaqus

The Sustainable Squad, The Department of Civil Engineering, Faculty of Engineering and Technology, Manav Rachna International Institute of Research and Studies organized a Professional Discourse on "Realistic Finite Element Analysis with Abaqus" on November 15, 2022. The Eminent speaker of the event was Mr. Raghavendra Banchhor, Senior Technology Specialist, Finite Element Analysis, Vias 3D. Mr. Banchhor started his session by discussing the various types of methods of finding the solution of Engineering Problems: Experimental Method, Analytical Method and Numerical Method, followed by the historical background of Finite Element Analysis (FEA). Mr. Banchhor gave emphasis on the typical procedure of solving a FEA problem, which includes Pre – Processing, Processing and Post – Processing. Mr. Banchhor also explained the various objectives of FEA, with the applications in Architecture, Civil Infrastructure, Industrial Structures. Mr. Banchhor further gave a detailed explanation on different core applications of the Abaqus software including analysis of Tall Buildings, Bridges, Dams, Foundations and Damage Modelling, Automotive & Aerospace Applications, Oil & Gas Applications. Mr. Banchhor concluded his session by stating the emerging trend of the software applications in different domains of Civil Engineering, correlating its disciplines with Smart Cities and Sustainable Built Environment.

The screenshot shows a Google Meet window with a presentation slide. The slide title is "Architecture, Engineering, and Construction Industry". It is divided into three columns:

- Buildings**: Includes "Commercial" and "Residential". A note below states "Often privately initiated, for profit".
- Civil Infrastructure**: Includes "Pipelines", "Bridges", "Railways", "Roads", "Tunnels", "Dams", and "Ports". A note below states "Often government-initiated, for public good".
- Industrial Structures**: Includes "Offshore structures, Power, process, and chemical plants, Transmission towers, Storage tanks".

The slide also features small images of a building, a bridge, and an offshore oil rig. The bottom of the screen shows the Windows taskbar with the time 10:32 AM, temperature 34°C, and date 11/15/2022. The Meet interface shows the presenter's name, Raghavendra Banchhor, and a list of participants including Sushant Kumar and 48 others.