

## Integral University, Lucknow

A Report on “Standard Penetration Test (SPT)” in the campus on 15<sup>th</sup> October, 2019

In view of this a Standard Penetration Test (SPT) has been conducted to develop better understanding of the subject and to provide field exposure to students. An SPT demonstration took place in the campus at the back of Boys Hostel-IV on 15<sup>th</sup> October, 2019 for enhancement of field knowledge to assess the bearing capacity of soil at varying depth.

The test was conducted by a team of VMT Lab according to IS2131-1981 along with the students absorbed the field experiences also the application of finding Bearing Capacity (UBC) of soil through disturb and undisturbed samples at different level and upto 10 meters.

Through bore holes the soil classified as silty clay and calculated that net safe bearing capacity of soil  $12\text{t/m}^2$  (approx) at a depth of 2 meters from ground surface. Students also extracted sample for moisture content by handling and protecting upto the lab. In lab the sample was tested by maintain L/d ratio and calculated the C- $\phi$  values by triaxial test. Student could aware the correction factors to N-Values such as overburden correction and dilatancy correction.

On site questions were asked by students which were replied by the experts, such as rising water table correction applied to ultimate bearing capacity of soil and stratified layers differ the UBC also. The settlement criteria were also discussed and the guidelines according to IS 1904-1986.

The bearing capacity of soil calculated according to IS6403-1981 thus the field testing was full of innovation and enhancing field knowledge to the students.



**SPT Setup**



**Expert replying the student's queries**