**National Institute of Technology, Hamirpur (H.P.)**

**Innovation research incubation club**

**Innovative research project proposal format**

**Research project title**: Shake table test based assessment of liquefaction potential in saturated sand

**Project description**:

Liquefaction in saturated sand leads to severe damage of foundation during earthquake. Shake table is used to assess the liquefaction potential of such soil by creating condition similar to earthquake. The liquefaction potential of soil can be reduced by increasing the density of sand deposit or by restraining the build up of pure water presser by earthquake. In this project, an attempt will be made to study the efficiency of these two counter measures in reducing the liquefaction potential of saturated sand using a shake table apparatus.

**Project completion time(tick or bold one option):**

* Short term (upto one semester)
* Midterm(upto one year)
* Long term (more than one year)

**Student skills required, pre-requisite (if any):**

Good command and interest in geotechnical engineering

**Number of students required (UG/PG) for the project:** 3 UG students

**Name of faculty member:** Rupali Sarmah

**Department:** civil engineering

**E-mail id:** [rupalisrmh05@gmail.com](mailto:rupalisrmh05@gmail.com)

**Contact no.** : 8351969473

**Any other details:**

The foundation engineering laboratory of civil engineering department, NITH possess a shake table apparatus for determining liquefaction potential which is not in running condition.