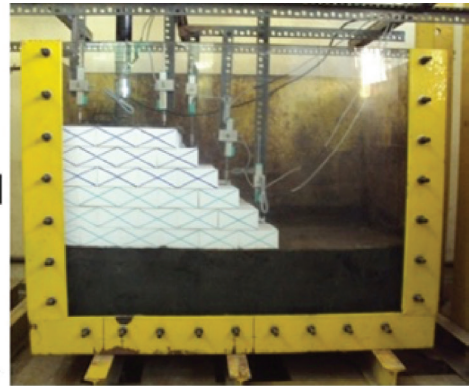
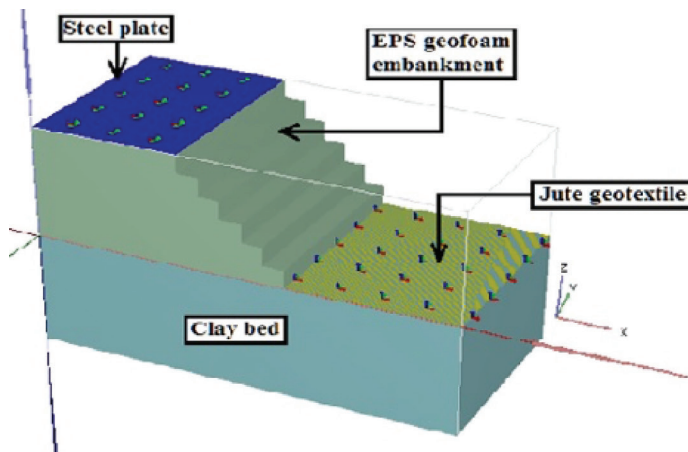


## Expanded polystyrene (EPS) geofoam embankments on soft soils



Construction of roadway or railway embankments on soft foundation soil such as marine clay is always a major issue due to poor load carrying capacity and excessive settlements. In such conditions, two major remedies are available. One is ground improvement technique by enhancing the engineering properties of foundation soil and second is reduction in the overburden pressure of structure on foundation soil.

Considering first remedial measure as a ground improvement technique, enhancing the engineering properties of foundation soil and its strengthening may be very difficult due to certain reasons such as differing in soil strata or soil strata may not be known accurately. However, second remedial measure to reduce the overburden pressure on foundation soil by using expanded polystyrene (EPS) geofoam having well defined properties and it can noticeably reduce the overburden pressure on foundation soil due to its very low density.

A significant improvement is obtained in terms of load carrying capacity due to provision of EPS geofoam embankment over clay bed. It is due to compressibility of EPS geofoam material where initially load carried by the blocks placed in a layer and slowly transfers it to the soil beneath resulting into improved load carrying capacity. Further enhancement in load carrying capacity is observed due to inclusion of jute geotextile at the base of embankment.