

## Cyclic triaxial apparatus with pore water / pore air pressure control



Cyclic triaxial apparatus is used to investigate soil behavior under cyclic loading. The apparatus in Ehime University has special equipment so that not only pore water pressure but pore air pressure is independently controlled during tests.

Natural soils below ground water table are fully saturated. However, recent investigations have revealed that air in artificially desaturated soil below ground water table survives and unsaturated condition lasts more than a few tens of years. Since liquefaction resistance of soil sharply increases with decreasing degree of saturation, in-situ air injection techniques are recently developed.

This apparatus is specially used to study liquefaction resistances of unsaturated sandy soils.