

## Development of 8-components small-size Intelligent Type Strainmeter.

# tsuneo yamauchi[1]; Atsushi Mukai[2]; Hiroshi Ishii[3]; shigeo Matsumoto[4]

[1] RCSVDM; [2] Faculty of Informatics, Nara Sangyo Univ.; [3] TRIES; [4] ERI

We have developed a cableless intelligent type strainmeter of small-size for measuring in-situ stresses by stress release method. 8 strainmeters, an A/D converter, a CPU, a memory and a battery are equipped in the newly developed intelligent type strainmeter. A diameter of each strainmeter is only 22mm. Total length of 8-components is 110.5 mm. A diameter of a data logger (A/D converter, CPU, memory and battery) is 43.7mm. Total length of the intelligent type strain meter is 1,167 mm. As the size of the newly developed instrument becomes small, we are able to make an overcoring easily after coupled with a basement rock by expansion grout. Even if we make an overcoring using HQ core-barrel, we are able to take out the basement rock of more than 16 mm thickness.