



## **Automatic Control of Stability of Slovenian Strong Motion Network**

I. Tasic (1), **M. Mali** (1), P. Sincic (1), R. Vidrih (1)

(1) Environmental Agency of the Republic of Slovenia, Seismology and Geology Office

Slovenian Strong Motion Network currently operates with eight Etna Strong Motion accelerographs, equipped with FBA-23 or EpiSensor type accelerometers, and one K2 Strong Motion accelerograph, equipped with three EpiSensor type accelerometers. To control the stability of sensor transfer function, calibration measurements need to be periodically performed. Regards to the type of the sensor, two different calibration test signals (functional test and dual polarity pulse test) are available and are already built in accelerograph unit. For stability control of FBA-23 type accelerometers, functional test is executed. For stability control of EpiSensor type accelerometers, dual polarity pulse is executed. We have developed an algorithm which analyzes response of accelerometer to the test signal and, regards to the type of accelerometer, evaluates the main significances of particular accelerometer. Moreover, we developed software, which automatically performs calibration test signal, downloads the data, calculates the main significances of specific accelerometer and presents the test results (figure and data format). Furthermore, the whole stability control procedure can be preformed from our control centre.

**Key Words:** accelerograph, calibration, stability control, FBA-23, EpiSensor