

On-line Monitoring of Vibration and Strain in Pillar's Legs

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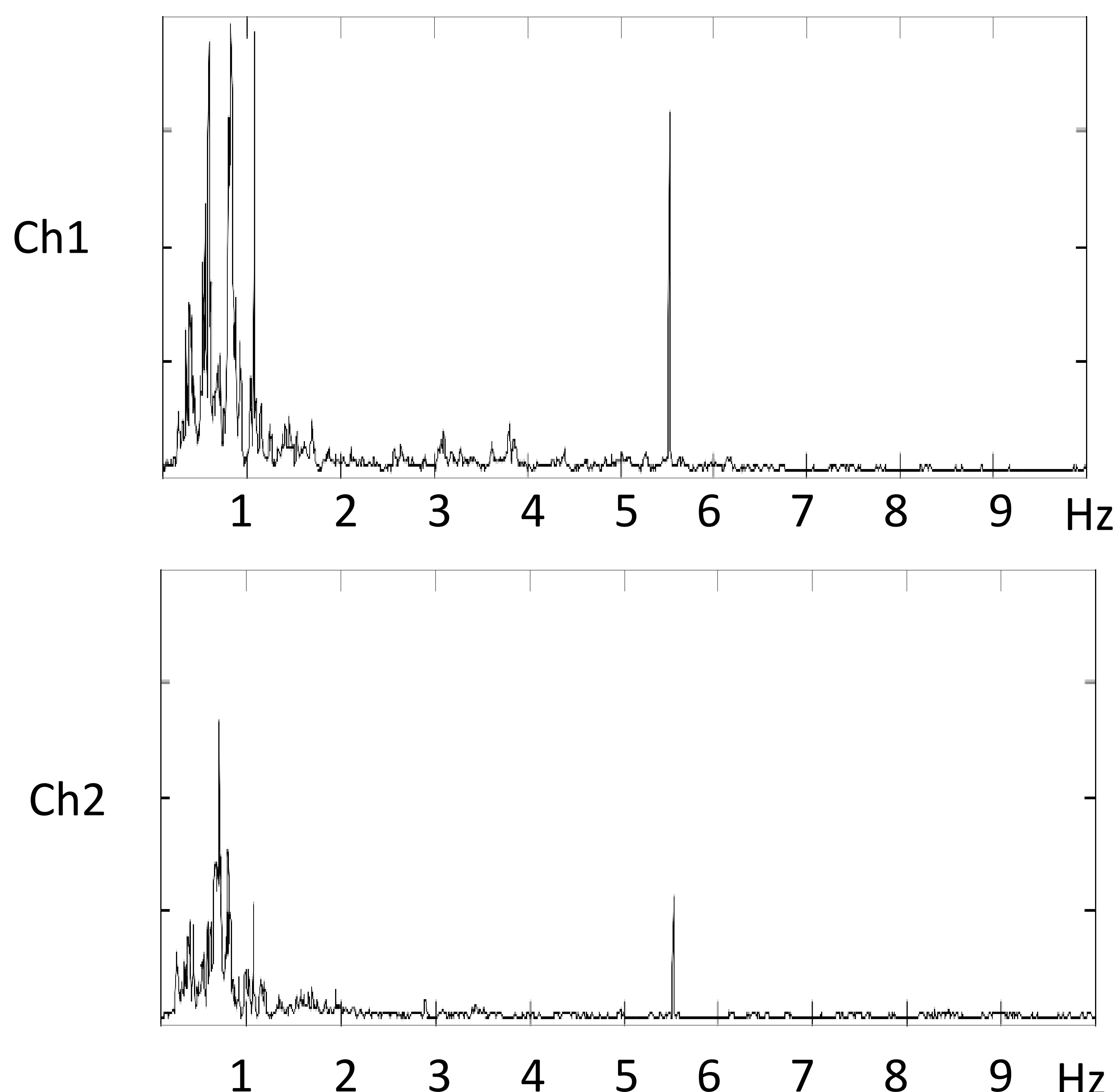
Modern electric transmission systems provide additional data about conductor conditions under different weather conditions as temperature and sag of conductor. Except direct measurement on high voltage conductor, nowadays the indirect measurement technique is possible to apply in pillar's legs of transmission line.



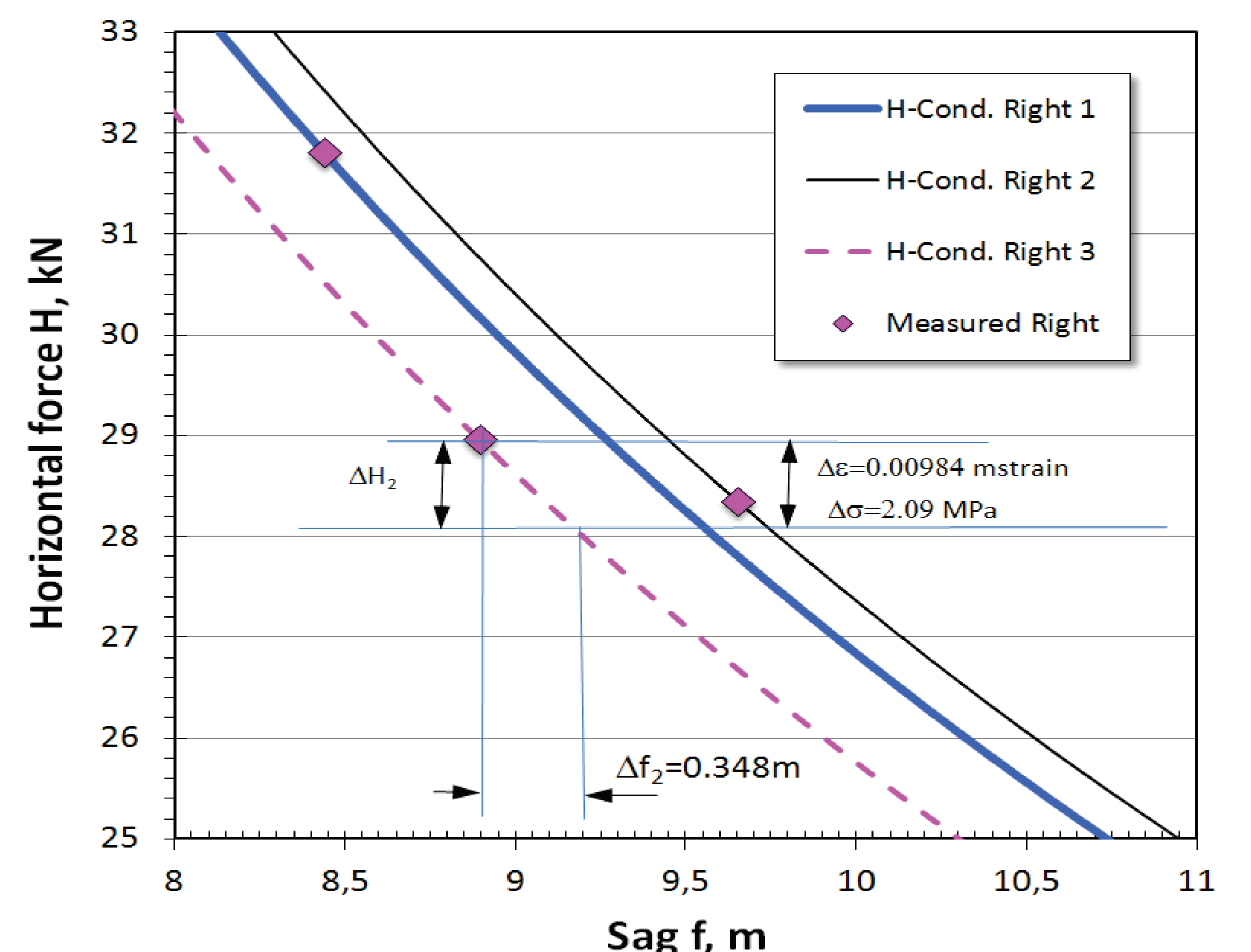
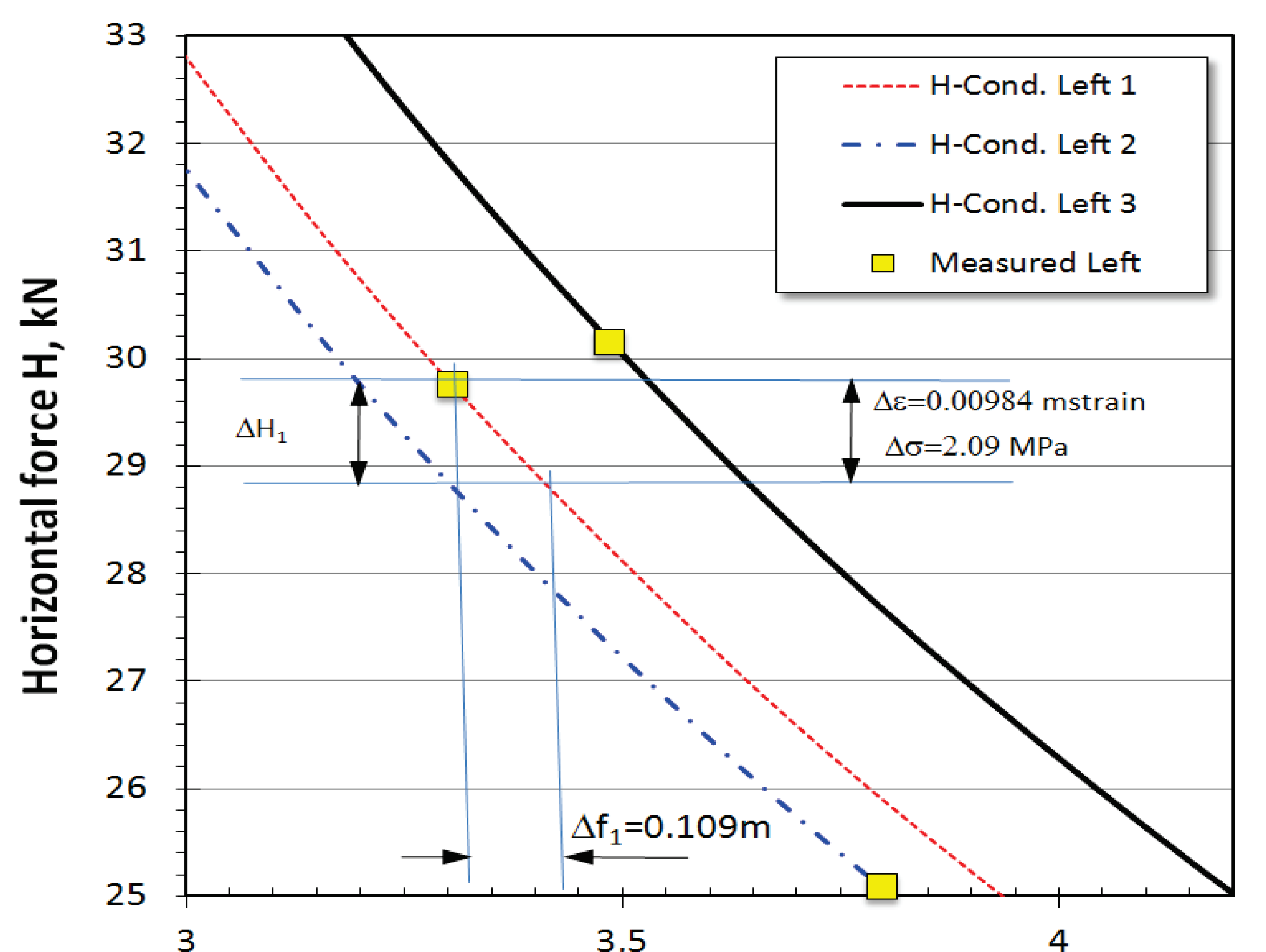
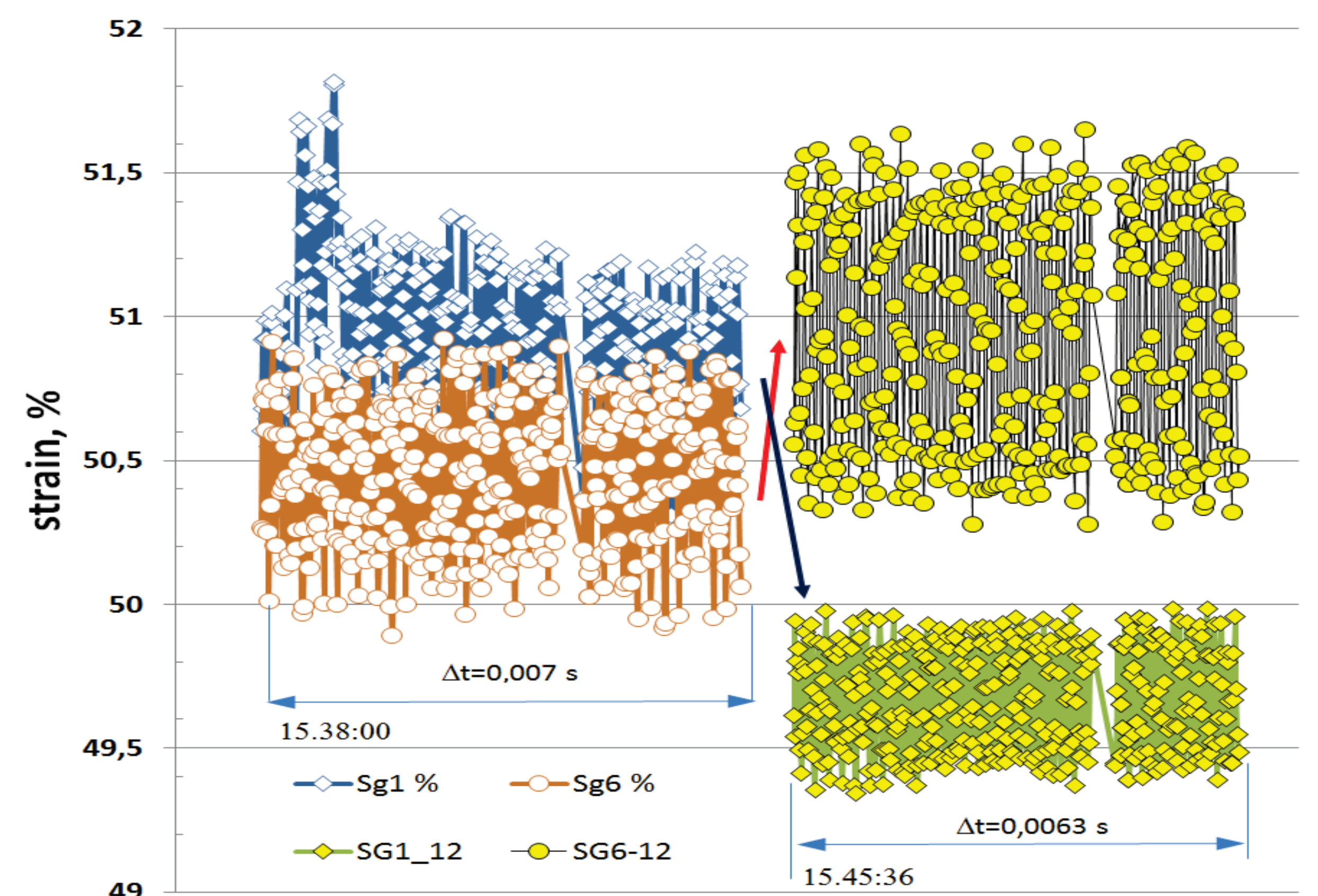
Layout of accelerometers The control penetrometer

VIBRATION MONITORING

Frequency analysis is based on Fourier's analysis of oscillations. Acceleration measurements and determination of tower eigen frequency 5.5 Hz



STRAIN MEASUREMENT



It is possible to detect changes of forces in the conductor, which can be a consequence of sag, by monitoring the change in strain of towers above the foundations.