



NEW ZEALAND
GEOTECHNICAL
SOCIETY INC
www.nzgs.org

The NZ Geotechnical Society is offering a 2-DAY SHORT COURSE ON IN-SITU SEISMIC INVESTIGATION METHODS FOR SITE CLASSIFICATION

PRESENTERS

Brady Cox, Ph.D., P.E. (Utah State University), Liam Wotherspoon, Ph.D. (University of Auckland), Andrew Stolte, Ph.D. (University of Auckland), Joe Vantassel, Ph.D. (Virginia Tech)

All presenters lead research focussing on in-situ seismic investigation methods and have experience with New Zealand ground conditions. Presenters have led the development of good practice guidance and state of the art journal publications.



Liam Wotherspoon is a Professor in the Department of Civil and Environmental Engineering at the University of Auckland.



Brady Cox is a Professor in the Department of Civil and Environmental Engineering at Utah State University.



Joseph Vantassel is an Assistant Professor in the Department of Civil and Environmental Engineering at Virginia Tech.



Andrew Stolte is a Lecturer in the Department of Civil and Environmental Engineering at the University of Auckland.

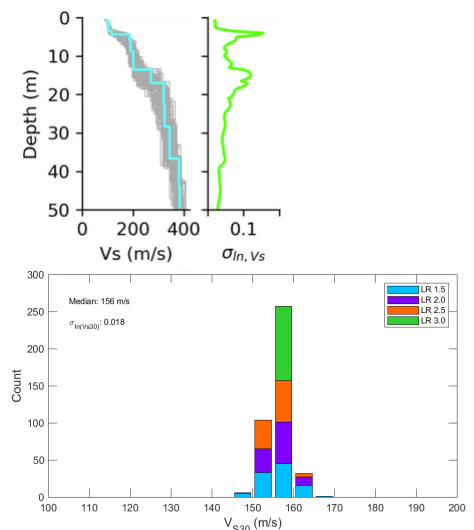
SUMMARY

This course will provide training and guidance to engineers, geophysicists, and engineering geologists on how to collect, process, and assess the quality of data and results obtained from in-situ seismic investigation methods. The course will focus primarily on measuring shear wave velocity (V_s) using downhole/probe and surface wave methods, and will discuss the translation of seismic measurements into site classification metrics such as V_{s30} and fundamental site period.

The course content will be split into two days. Participants can register for only Day One, or for both Day One and Day Two.

Day One will provide a more general overview of the different testing methods and focus on providing high-level information regarding how in-situ seismic testing should be conducted and reported so that quality and uncertainties can be evaluated by end-users.

Day Two will provide detailed, hands-on training on data processing and interpretation for downhole/probe, surface wave testing, and horizontal-to-vertical spectral ratio (HVSr) measurements using free, open-source software developed by the presenters. Day Two participants are encouraged to bring a laptop with open-source software already installed (instructions will be provided prior to the workshop).



SCHEDULE

AUCKLAND

DAY 1 12th June

DAY 2 13th June

LOCATION: BECA, 21 Pitt Street, Auckland CBD, TR1 Room

WELLINGTON

DAY 1 15th June

DAY 2 16th June

LOCATION: Oaks Wellington Hotel, 89 Courtenay Place, Te Aro, Wellington

CHRISTCHURCH

Day 1 19th June

Day 2 20th June

LOCATION: University of Canterbury, Psychology-Sociology, 69 Creyke Road, Christchurch, 252 Lecture Theatre

SHORT COURSE: IN-SITU SEISMIC INVESTIGATION METHODS FOR SITE CLASSIFICATION

COURSE STRUCTURE:

DAY 1

8:30-9:00 Registration Tea/Coffee

9:00-10:30 Session 1

- Introduction to Seismic Methods
- Site Classification Metrics

10:30-10:45 BREAK

10:45-12:15 Session 2

- Downhole Methods (Borehole and Probe)

12:15-12:45 LUNCH

13:00-14:30 Session 3

- Active Surface Wave Methods
- Passive Surface Wave Methods

14:30-14:45 BREAK

14:45-16.30 Session 4

- Horizontal-to-Vertical Spectral Ratio (HVSr) Method
- Surface Wave Inversion and Uncertainty Quantification

16:30-16:45 Wrap up

DAY 2

8:30-9:00 Registration Tea/Coffee

9:00-10:30 Session 1

- Downhole Data Processing and Interpretation

10:30-10:45 BREAK

10:45-12:15 Session 2

- Surface Wave Data Processing and Interpretation

12:00-13:00 LUNCH

13:00-14:30 Session 3

- Surface wave Inversion and Uncertainty Quantification

14:30-14:45 BREAK

14:45-16.30 Session 4

- Horizontal-to-Vertical Spectral Ratio (HVSr) Processing and Interpretation
- Calculating Site Classification Metrics

16:30-16:45 Wrap up



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REGISTRATION

TWO DAY COURSE:

\$600 +GST for NZGS, NZSEE, SESOC and NZSOLD members

\$1200 +GST for non-members of NZGS, NZSEE, SESOC and NZSOLD

Course numbers limited to 30

FIRST DAY ONLY:

\$350 +GST for NZGS, NZSEE, SESOC and NZSOLD members

\$700 +GST for non-members of NZGS, NZSEE, SESOC and NZSOLD

Course numbers limited to 75

Registration fees include attendance of the course and full catering for the day (morning and afternoon teas, lunch, tea and coffee). Fees will be refunded if a participant is unable to attend the course; however, only if others are waiting to be added to the course. Alternatively, a nominated substitute person may attend. If the course is cancelled, fees will be refunded in full.

Any surplus from the courses will be donated to Disaster Relief Funds to support Cyclone Gabriel's recovery.

REGISTER ONLINE

<https://www.nzgs.org/events/>

THIS SHORT COURSE IS
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