



institute  
of mine  
seismology

&



UNSW  
SYDNEY

## Mine Seismology Workshop



**24-26 September 2024, University of New South Wales,  
School of Minerals and Energy Resources Engineering  
(with online streaming)**

Tuesday 24 September	09h00 – 17h00	Primer Course on the Basics of Mine Seismology and Operating Seismic Monitoring Systems in Mines
Wednesday 25 September	09h00 – 17h00	Presentations on Implementation and Applications of Seismic Monitoring in Mines
Thursday 26 September	09h00 – 17h00	Presentations on Mine Seismology and Training in IMS Software

The registration fee is AUD 200 / day (incl. tea / coffee) for in-person attendance and AUD 100 / day for online attendance.

Presenters have 100% discount for the day of presentation.

Students and lecturers of UNSW attend for free, but require registration. Students of other universities have 50% discount provided proof of student registration is sent to IMS.

For more information and registration please visit IMS web site.

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**Tuesday 24 September – Day 1, (Venue TBC)****Primer Course on the Basics of Mine Seismology and Operating Seismic Monitoring Systems in Mines**

The objective of the course is to explain the elementary principles of seismology and seismic monitoring in mines to non-seismologists: objectives of seismic monitoring in mines, seismic waves and seismic sources, seismic monitoring systems, location of seismic events, basic and derivative source parameters, source mechanisms, classification of seismic events, parameters of seismicity, analysis and interpretation of seismicity.

The second part of the course is focused on planning, budgeting, installing and maintaining of seismic monitoring systems in mines.

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**Wednesday 25 September – Day 2, (Venue TBC)****Presentations on Implementation and Applications of Seismic Monitoring in Mines**

The workshop is aimed at promoting discussion on best practices for seismic monitoring in mines. These may cover various topics of mine seismology and seismic monitoring: mechanisms of seismic events and mechanics of rockburst damage, processing of seismic monitoring data, audit of assumptions adopted in mine design and planning (e.g. parameters of *in situ* stress field), cave tracking, re-entry protocols, assessment of seismic hazard and rockburst hazard.

Geotechnical practitioners are invited to share their experience with seismic monitoring at particular mines.

If you would like to present please send an e-mail to: [Denver.Birch@IMSI.org](mailto:Denver.Birch@IMSI.org).

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**Thursday 26 September – Day 3, (Venue TBC)****Presentations on Mine Seismology and Training in IMS Software**

There will be a combination of theoretical presentations and practical exercises explaining and illustrating the processing and interpretation of seismic monitoring data. Attendees with modern laptops will receive IMS software with which to perform hands-on tasks during training and gain experience. Note that in order to run IMS software, we strongly recommend a machine with at least 8GB of RAM and a modern 3D graphics card (NVidia or AMD) with up-to-date drivers installed.