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PROFESSIONAL DEVELOPMENT TRAINING COURSES

Two 1-day Professional Development Courses: Perth

Practical Variography Variography using Supervisor

Training course	Location	Date
PRACTICAL VARIOGRAPHY	PERTH	22 July and 8 November
VARIOGRAPHY USING SUPERVISOR	PERTH	23 July and 9 November

Course Content: PRACTICAL VARIOGRAPHY

This one-day course provides practical and relevant advice for preparing and analysing variograms. The quality of variography analysis impacts on kriging, conditional simulation, neighbourhood search strategies, block size studies, volume-variance correction for selective reporting and classification using kriging variance.

Participants will:

- Improve their analytical skills for variography
- Increase awareness of variograms pit-falls
- Pick up tips, hints and case studies for a relevant and practical reference

Course content:

- Applications and issues
- Preparing for variography
- Calculating variograms
- Interpreting for directions of continuity
- Interpreting 'interesting' variograms
- Modelling variograms
- Relevance of variograms for Inverse Distance methods
- Practical application of variograms for kriging and conditional simulation

Who should attend?

Geologists responsible for: resource estimation, estimating drill spacing or conditional simulation systems. The course programme assumes attendees have had some previous exposure to variography and are looking to fine-tune their skills and develop more practical awareness of pit-falls.



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Course Content: Practical Variography using Supervisor (Analysor and Visor modules)

This one-day course gives you the skills to import data, calculate and model variograms using the Supervisor software modules Analysor and Visor, while working on your own data. If you have attended the Practical Variography course, this course will help you put the theory you learned into practice.

Participants will:

- Be able to analyse grade continuity quickly
- Learn how to model variograms
- Understand how to take advantage of Supervisor's acceleration features to add value to analysis rather than spend valuable time on data and information management

Course content:

- VISOR fundamentals and acceleration features
- Loading and organising data and projects
- Calculating variograms - tools and skills
- Tools and skills for selecting the best variogram types
- Tools and skills for interpreting directions of best continuity
- Modelling variograms
- Comparing variograms
- Exporting and plotting

You are encouraged to bring your own data to work on but several data sets will also be available. The course will be run as a workshop with active participation in the tools.

Who should attend?

Geologists and engineers involved in resource estimation who are currently using Supervisor or are interested in using Supervisor.

Please note: Snowden's Supervisor software is now available to everyone in the mining industry.

Delegate feedback

Snowden prides itself on the standard of its courses and on the quality of its presenters. Feedback from our previous course participants includes the following:

"The best parts were the practical examples and the explanations of real data and how the issues were identified and overcome"

"There were numerous tips"

"Good mix of theory and practical, well prepared and knowledgeable instructor"

"It was very interesting to deal with real data (our own) to demonstrate practical variography"



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Presenter The course presenter will be chosen from Snowden's most experienced consultants

Lynn Olssen - Principal Consultant - Applied Geosciences

BSc (Geology), University of Western Australia; (CP) MAusIMM.



Lynn has more than 15 years experience in the mining industry. Prior to commencing work with Snowden she worked in resource evaluation and mining geology roles in Western Australia gold and copper deposits. Lynn joined Snowden in April 2002 with skills in resource estimation, reconciliation, geostatistical analysis, database quality assurance and quality control, and grade control. Since joining Snowden Lynn has worked on resource estimation projects and reviews for gold, copper, nickel, iron ore, base metals, mineral sands and platinum reef deposits around the world. She is also involved in providing resource estimation mentoring to the mining industry and is a developer and presenter of Snowden's technical courses.

Michael Andrew - Divisional Manager - Applied Geosciences Perth

BSc, Australian National University; Postgraduate Certificate in Geostatistics, Edith Cowan University; MAusIMM



Michael has more than 20 years experience in the mining industry working in roles in exploration and mining throughout Australia and overseas. Prior to joining Snowden Mining in November 2003, he was employed by Newmont Australia (previously Normandy Mining) as a senior resource geologist involved in the resource estimation and optimisation of a range of commodities and deposit styles. Michael has specific experience in geostatistical resource estimation, optimisation of both open-cut and underground resources, grade control and risk assessment. Since joining Snowden, Michael has been involved in simulation risk studies, resource estimates, resource review and audits, mine valuation studies and technical training. Michael develops and presents our professional development courses.

Richard Sulway - Principal Consultant - Applied Geosciences

MAppSC University of New South Wales, 1995 BAppSC (Hons) (Geology) University of Technology Sydney, 1990 Member, Australasian Institute of Mining & Metallurgy (MAusIMM) The Geological Society of Australia.



Richard is a geologist with more than 19 years experience in exploration, mining and resource estimation. Prior to joining Snowden in 2004, Richard worked as resource modelling consultant for Datamine mining software. Since joining Snowden, Richard has been involved in resource estimates, audits, technical documentation and training. Richard has worked on both exploration and mining projects. Richard has an extensive knowledge in the use of Datamine and Surpac software and has presented public training courses in the use of both packages. Specific work with Snowden comprises resource estimation and reviews for a number of deposit types including gold (Australia, Mali, Malaysia and Indonesia), iron ore (Australia and India), copper (Australia, Philippines) nickel sulphide (Australia) nickel laterite (Turkey, Macedonia, Kosovo, Albania), PGE (Philippines, South Africa) and mineral sands (Australia). Richard also develops and presents Snowden's technical training courses.

Fees

Payment required at time of registration

Each course costs \$1,430 + GST per person. This includes the workshop manual, refreshments and lunch.

PLEASE NOTE: You will need to bring your laptop to the courses

Contact and registration

For more information on Snowden's Training and Mentoring programmes, please contact Diana Titren, Training Division Manager, on +61 8 9213 9670 or training@snowdengroup.com

To register, please complete the following form and either fax it to Shannon Aitken, Training Coordinator, on fax +61 8 9322 2576 or email to training@snowdengroup.com

Please visit www.snowdengroup.com for more information about our training courses

Snowden Office Contact Details

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REGISTRATION FORM

Practical Variography & Variography Using Supervisor: Perth

To: Snowden Mining Industry Consultants, PO Box 77, West Perth, WA 6872

Tel: +61 8 9211 8670 Fax: +61 8 9322 2576

Date	<input type="checkbox"/> Practical Variography <input type="checkbox"/> 22 July or <input type="checkbox"/> 8 Nov AU\$1,430 + GST \$1,573 <input type="checkbox"/> Variography using Supervisor <input type="checkbox"/> 23 July or <input type="checkbox"/> 9 Nov AU\$1,430 + GST \$1,573 Total, less 5% discount if paying by credit card _____ TOTAL including GST _____ PLEASE NOTE: Attendees are to bring their own laptops for the practical exercises
Name	
Position in company	
Company name	
Address	
Tel	
Fax	
Email	

PAYMENT OPTIONS

Payment required at time of registration - payment confirms your registration.
A tax invoice will be issued on receipt of payment.

Please tick your payment option.

- Cheque**
Please enclose a cheque made payable to Snowden Mining Industry Consultants
- Electronic transfer**
Please quote your EFT number
Please quote the course name on your EFT transaction.
ANZ Bank, Corner Hay and Outram Street, West Perth, WA 6005
Branch: 016498 Account: 8376 99407 Swift Code: ANZBAU3M

- Credit card: 5% discount offered for credit card payments**
 Visa card Master card AMEX

Please note: Snowden DOES NOT charge a surcharge for credit card payments.

Card no:

Cardholder's name: _____

Expiry date: / Signature: _____

PLEASE NOTE: No refunds for cancellations made within 2 weeks of the course or for 'no shows'. Delegates can be substituted. If the minimum number of delegates is not achieved, delegates will be notified 1 week prior to course start date and fees will be refunded.