

# **KEGS Foundation Announcement**

## **Geophysical Short Course**

### **Integrated Interpretation of AEM Surveys**

**Presented by**

**Dr. James Macnae, RMIT, Australia**

**Inaugural Collett Distinguished Visiting Lecturer**

**University of Toronto**

**McLennan Physics Building, Room 110**

**Thursday, March 7, 2019, 8:30am to 12 pm**

**Advance registration strongly advised:**

**Professionals: Early bird \$90; regular \$100; at door \$120**

**Veterans & retirees: \$20 discount**

**Students: \$20 (refundable)**

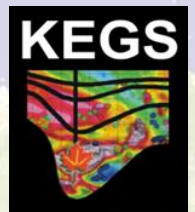
**Details & Registration: [www.kegsfoundation.org](http://www.kegsfoundation.org)**

**Lunch: Pizza & refreshments - sponsored by Abitibi Geophysics**

**Arranged by the KEGS Foundation**

**with the support of KEGS & UofT**

**Advancing geophysical education since 1999**



[www.kegsfoundation.org](http://www.kegsfoundation.org)

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[www.kegsonline.org](http://www.kegsonline.org)

# **GEOPHYSICAL SHORT COURSE**

## **Integrated Interpretation of AEM Surveys:**

### **Determination and Use of Appropriate Geophysical Models**

Presented by

**Dr. James Macnae, RMIT, Melbourne, Australia**

**Inaugural Collett Distinguished Visiting Lecturer in Geophysics**

**Thursday, March 7, 8:30 am – 12 pm**

**University of Toronto, McLennan Physics Building, 60 St. George Street, Room 110**

**Organized by the KEGS Foundation with the support of KEGS & U of T**

**Registration: Advance registration strongly advised – Venue capacity limited**

Please register online using PayPal; See tab at top [www.kegsfoundation.org](http://www.kegsfoundation.org)

**Professionals:** Early Bird: \$90 (< Feb. 10)  
Regular Advance: \$100 (< Mar. 2)  
Late: \$120 (Cash/cheque only at the door, subject to availability)  
Veterans (> 70) and Retirees: \$20 discount  
\$50 charitable tax receipt for all of the above

**Students:** Please register in advance (\$20); refundable at end of course

**Miscellaneous: Coffee and light snacks provided at mid-morning coffee break**

**Lunch (pizza and refreshments) generously sponsored by Abitibi Geophysics**

**Convenient access via TTC \* Parking: university garage off Huron Street**

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## Course Outline

### **Integrated interpretation of airborne electromagnetic surveys: Determination and use of appropriate geophysical models**

Presenter: Prof. James Macnae (RMIT University, Melbourne, Australia),  
Inaugural Len and Genice Collett Distinguished Visiting Lecturer in Geophysics.

**Content:** This half-day course will cover:

- 1) The basics of geophysical electromagnetics (EM), time and frequency-domain
- 2) Airborne EM systems, trade-offs and recent advances
- 3) The physical limits of conductivity resolution with AEM
- 4) Detectable geology: Earth conductivity variations
- 5) Consideration of computed geophysical models, direct and inverse
  - a. Stitched 1D for quasi-layered environments
  - b. 2D and 2½D
  - c. 3D, parametric and voxelated
- 6) Case histories: Using computed AEM models to guide geological interpretation:  
Successes, limitations and failures
- 7) Where might AEM be in 10 years?

**For Dr. Macnae's biography and publications, please consult:**

[www.rmit.edu.au/contact/staff-contacts/academic-staff/m/macnae-professor-james](http://www.rmit.edu.au/contact/staff-contacts/academic-staff/m/macnae-professor-james)

[wiki.seg.org/wiki/James\\_Macnae](http://wiki.seg.org/wiki/James_Macnae)

[www.researchgate.net/profile/James\\_Macnae](http://www.researchgate.net/profile/James_Macnae)